

GUIDANCE FOR STATES ON PETROLEUM SHORTAGE RESPONSE PLANNING

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*National Association of
State Energy Officials*



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NATIONAL ASSOCIATION OF STATE ENERGY OFFICIALS

The National Association of State Energy Officials (NASEO) is the only national nonprofit organization whose membership includes governor-designated energy officials from each of the 56 states and territories. Formed in 1986, NASEO facilitates peer information exchange among State Energy Officials, serves as a resource for and about State Energy Offices, and advocates the interests of State Energy Offices to Congress and federal agencies.

Members are senior officials from State and Territory Energy Offices, as well as affiliates from the private and public sectors. Member State Energy Offices work on a wide range of energy programs and policies, including those that shape:

- Energy system resiliency, energy assurance, cybersecurity, and supply disruption preparedness, and response;
- Energy efficiency in all market sectors, including buildings, industry, and agriculture;
- Renewable energy development, such as solar, wind, geothermal, and biomass;
- Advanced transportation technologies, alternative fuels and infrastructure;
- The production and distribution of oil, natural gas, and electricity; and
- Energy/environment integration and the promotion of cost-effective energy solutions.

States manage and invest more than \$8 billion of their own funds each year. These funds are derived from state appropriations, system benefit charges, and other nonfederal sources and are utilized to advance cost-effective energy efficiency actions that aid consumers and businesses in reducing energy costs while enhancing economic competitiveness.

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PREFACE

State Energy Offices, created by the governors, were originally designated to administer the federal emergency fuel allocation program as a result of the 1973 Arab oil embargo. Known as the set-aside program, it allowed states to direct a percentage of available fuel supplies to meet emergency needs in their states under the Federal Mandatory Petroleum Allocation program that ended in 1981.

By the 1980s, the role of State Energy Offices in responding to energy emergencies was expanding steadily to cover other types of incidents such as natural gas shortages, a protracted coal miner strike in the early 1980s that affected electrical generation and a second major petroleum shortage caused by the 1979 Iranian revolution. Also during this period federally funded State Energy Program planning grants were enacted to assist states in dealing with energy emergencies and to develop longer range programs to conserve energy and mitigate the risk of future shortages. These grants, later called the U.S. State Energy Program or SEP, still exist to this day and provide states with the flexibility to develop programs tailored to their unique needs including energy emergency planning.

The State Energy Efficiency Programs Improvement Act of 1990¹ required states to begin submitting to the U.S. Secretary of Energy, as a supplement to their annual energy conservation plans, an energy emergency planning program for an energy supply disruption as designated by the state, consistent with applicable federal and state law. The contingency plan “shall include an implementation strategy or strategies (including regional coordination) for dealing with energy emergencies.” States have continued to play an important role in assuring adequate, reliable and secure supplies of energy to meet the needs of consumers and business and to respond to energy supply disruptions.

However, many states’ existing energy assurance plans fail to include adequately detailed contingency measures for addressing petroleum shortages, including meeting priority needs for petroleum and other liquid fuels during emergencies; recognizing this shortfall, many State Energy Offices have prioritized and elevated petroleum contingency planning as they pursue updates to their energy assurance plans. By creating a detailed action plan to address petroleum and liquid fuel supply disruptions, energy emergency planners can not only enhance their response strategy by addressing the unique security challenges posed by petroleum and other liquid fuels, but also help ensure greater energy system and community resiliency during and after an incident. Therefore, based on NASEO’s review of existing energy assurance plans it is recommended that as states make updates to those plans they include greater detail and develop plans that are more consistent, or coordinated, on a regional basis to guide actions that might be taken during a severe petroleum and liquid fuel shortage.

This guide is designed to provide assistance to the states as they update their energy assurance plans. It also summarizes key findings and serves as a companion document to NASEO’s suite of energy assurance technical assistance offerings, energy emergency exercises, and coordination workshops. In the past two years alone, several of these discussions have sharply highlighted the need for plans to more effectively address petroleum shortages.

- Clear Path IV exercise held in Portland, Oregon in April 2016 examined the consequences and response to a major earthquake caused by the Cascadia subduction zone and the resulting tsunami. Such an event would have catastrophic impacts on petroleum infrastructure in Oregon

¹ Energy Policy and Conservation Act, Section 363, as amended by P.L. 101-440 (104 Stat. 1007) 42 U.S.C. 6323(e).
<https://www.gpo.gov/fdsys/pkg/PLAW-109publ58/html/PLAW-109publ58.htm>

and Washington State and would present significant challenges for resupplying petroleum to the region.

- In September 2016, a Western regional coordinating meeting was held to explore contingencies for managing petroleum shortages. The discussions identified the importance of developing plans that could be implemented on a regional basis in a more consistent way to help facilitate response and implementation.
- During the summer of 2016, the Federal Emergency Management Agency (FEMA) held a series of state-based workshops in the Midwest to examine the implications of a long-term power outage that could last weeks or more than a month. In many of those state-level exercises, the importance of petroleum supplies for response and recovery was highlighted.
- In December 2016, the Liberty Eclipse exercise examined the impact of a cyberattack that caused a large-scale power outage in New England. Under the exercise scenario, the power outage persisted even when steps had been taken that were believed to have restored power. Under this scenario, many East Coast refineries shut down, and in areas without power, access to fuel became limited. This scenario reinforced the importance of fuel plans to support the needs of emergency responders.
- Clear Path V exercise held in Houston, Texas in June 2017 explored the impact from a hypothetical category 3 hurricane making landfall near Houston, Texas. Under the exercise scenario, all of the refineries in Houston, Galveston and Port Arthur shut down before landfall and 3.8 million customers were without power in Texas and Louisiana.

In response to a request by the U.S. Secretary of Energy for advice on natural gas and oil infrastructure resilience in December 2014, the National Petroleum Council (NPC) presented to the secretary a report entitled *Emergency Planning and Preparedness: Enhancing Emergency Preparedness for Natural Disasters*.² The report recommended that “states should increase engagement with the oil and natural gas industry in their energy assurance plans, and industry members should assist the states in such efforts.” This point was echoed in the NPC 2016 Emergency Preparedness Addendum Working Paper.³ This document will be used to further dialogue between states and industry sector partners.

In light of the knowledge gained over the course of the last year, the need for the development of model plans and a higher level of regional multistate coordination has become clearly apparent.

² National Petroleum Council. *Enhancing Emergency Preparedness for Natural Disasters: Government and Oil and Natural Gas Industry Actions to Prepare, Respond, and Recover*. December 18, 2014. http://www.npc.org/reports/NPC_EmPrep_Report_2014-12-18.pdf

³ National Petroleum Council. *2016 Emergency Preparedness Addendum Working Paper: Observations on DOE's 2016 Clear Path IV Exercise and Implementation of the 2014 NPC Emergency Preparedness Report Recommendations*. July 29, 2016. http://www.npc.org/reports/EP2016-working_paper.pdf

I. EXECUTIVE SUMMARY

While most petroleum supply disruptions or shortage events are resolved by the energy industry before they become significant, there are instances where the severity and scope of disasters require additional actions by government to help facilitate and coordinate response and recovery efforts. Disasters such as Hurricanes Harvey, Irma, and Marie in 2017; the Colonial Pipeline disruptions in 2016; Hurricane Sandy in 2012; and Hurricanes Katrina and Rita in 2005 all resulted in significant to severe petroleum shortages in impacted states and regions. Emergency preparedness exercises conducted in 2016 and 2017 showed that potential events, such as a Cascadia subduction zone earthquake and tsunami in the Pacific Northwest, or a potential earthquake from the New Madrid fault in the Midwest, would be sufficiently serious that government actions would be needed to assist with restoring petroleum supplies to affected states and regions. Further, the advent of cyber security threats means that petroleum (and other energy systems) supply disruptions could occur in virtually any state or region across the nation.

The need for practical planning that minimizes disruptions to energy supplies and mitigates the impact of disruptions is clear. NASEO's review of existing state energy assurance plans found that many plans did not include sufficiently detailed contingency measures for addressing petroleum shortages, including meeting priority needs for petroleum and other liquid fuels during emergencies. This guide responds to the need identified by the states and others for improved planning and mitigation in the petroleum sector and is a critical part of enabling coordination among state agencies, interstate and regional organizations, and private sector energy providers that produce, transport, and distribute petroleum products in all states and regions.

The 56 governors' energy directors across the nation are uniquely positioned to drive coordination and cooperation between the private sector fuel providers and regulatory bodies, both within their own state boundaries and in concert with their peers and similar organizations at the multistate level. It is important to note that many energy emergencies cross state lines and often do not conform to traditional geographic groupings. The governors' energy directors, in their role as lead responders to petroleum supply disruptions and conveners of relevant in-state and regional stakeholders, play a key role in developing input for energy assurance and petroleum shortage response plans. This responsibility assures that state policy and decision makers have reviewed, understand, and support the potential use of programs and measures that have been included in their plans based on this guidance. It also helps engage petroleum suppliers in their states, who may be called upon to partner with the states when conditions may warrant the use of the petroleum shortage response measures such as state Waivers of Federal Motor Carrier Safety Regulations (Driver Hours of Service) and Petroleum Priorities for Essential Services.

Guidance on Structure and Contents of State Plans

When beginning or updating a state petroleum response plan, a state should include information that describes the status of the petroleum infrastructure in the state; agency structure and communication networks in place among state, federal, local, and private sector entities; and a risk assessment of current threats, hazards, and vulnerabilities to the energy systems. Having this background information helps inform the use of policies and programs that are tailored to each state's needs. If these petroleum plans are part of an overall integrated energy assurance plan this information would be grouped with similar content that addresses these same topics for electricity and natural gas. Key pieces of information a state should consider including in the response plan are:

1. Data and Linkages to Other Plans

- The plan should include a table listing of the date the plan was originally created and all subsequent reviews and updates, and the schedule for future reviews and updates. This page should also list any other state planning documents that support the plan including a brief description of each document, its purpose, and a hypertext link to the document. Coordination with the federal government, other state governments, local governments and the petroleum industries should be detailed in the communications and information sharing sections of the plan.

2. Organizational Changes

- The state should update any organizational changes that might have affected the roles and responsibilities of state agencies as described in the existing energy assurance plan since its last issue.

3. Historical Petroleum Shortages and Local, State, and Federal Responses

- The plan should document and provide historical context for any petroleum shortages, including events and factors that caused the shortages, as well as impacts of the shortages on the price, supply, or availability of petroleum products and liquid fuels, as well as past state and local responses and their effectiveness. A state should also address its response to more limited shortage events.

4. State Agencies' Roles and Responsibilities and Concept of Operations Plans

- The state should clearly describe the roles of each agency that is responsible for responding to a petroleum shortage. It should include a description of any broad or specific authorities to deal with petroleum shortages. It should also include an organizational chart that shows the relationships between state agencies and the lines of authorities and address the delegation of authorities by the state under the National Incident Management System and the delegation of responsibilities.

5. Coordination and Information Sharing Mechanisms

- A state should develop roles for various state agencies involved in communicating and sharing data and information relevant to responding to petroleum shortages. This could include organizational structures that include individuals from various agencies, procedures for the use of incident management software systems, and emergency contact lists. A graphic such as a flowchart or diagram to illustrate the flow and type of information needed among state agencies, the private sector, the federal government and other States may be useful.

6. State Petroleum Infrastructure and Supply Chains

- A state should describe the petroleum supply chain and critical infrastructure in its plan. Key information that is needed should include: a summary of petroleum products imported/exported from the state; a description and illustration of the supply chain; a regional map of petroleum infrastructure; a list of petroleum suppliers, refineries, and petroleum terminals that supply the state; a map showing all petroleum product pipelines in the state and region; other demographic information (e.g. the type of heating fuels used in homes, vehicle registration, etc.), and petroleum product prices (both current and historical).

7. Data and Methods for Monitoring Petroleum Supply, Demand, and Prices

- States should include data on petroleum supply, demand, and prices wherever possible in the plan. Good sources to consider for acquiring this information include the Energy Information Administration (EIA), the state public utility commission, state oil and gas divisions, third-parties serving the oil and gas industry, industry trade press releases, and customized news alerts.

8. State Petroleum Risk Assessments (Vulnerabilities, Consequences, Threats)

- The plan should include a risk assessment of the state's petroleum infrastructure and supply channels. The risk assessment should highlight threats and vulnerabilities to the current infrastructure and supply system, and identify areas where advance planning and actions can mitigate those hazards and develop a more resilient system.

Guidance on Details for Petroleum Response Programs and Measures

After base information on petroleum supply infrastructure, agency communications, and risks to petroleum delivery has been gathered and catalogued, the plan should lay out the actions the state might activate as a response to events causing the petroleum shortage. These actions are designed to respond to specific circumstances and consequences that can occur in fuel shortages. Some are fairly common

state actions while others have either never been used or have not been used in decades. A few of the actions would only be used by states during extreme and long-lasting events. Possible programs and measures that a state could include in plan are:

Waivers of the Federal Motor Carrier Safety Administration (FMCSA) Safety Regulations	Emergency action under the Federal Motor Carrier Safety Regulations (FMCSR) is automatically triggered under a declared state emergency. This waives the FMCSA safety rules which include limits on the number of hours a driver can operate. This allows drivers to make more fuel deliveries and fuel can be transported over longer distances to help elevate the shortage.
Waivers of Environmental Fuel Specifications	The U.S. Environmental Protection Agency (EPA) and most states have requirements on gasoline and diesel fuel specifications that are designed to limit emissions. Waving certain fuel specifications can increase overall supply and will allow supplies to be distributed in areas where the product may not normally be used.
Petroleum Priorities for Essential Services Programs	This priority end-user program would require petroleum suppliers to provide sufficient liquid fuels to meet the needs of critical end-users such as first responders: law enforcement, fire, and emergency medical services, and any other essential service providers determined by the state or other legal authorities. This would only be used in the more serious longer-term shortages.
Minimum Purchase and Odd-Even Purchase Programs	A minimum purchase plan is designed to help reduce long lines at retail gas stations, and typically involve requiring motorists to purchase a minimum amount of gasoline or diesel. This can be done either as a voluntary or mandatory measure. It can also be done as an alternative or in addition to an odd-even plan where motorists can purchase gas every other day depending on their license plate numbers.
State Petroleum Set-Aside Programs for Bulk Purchases	State petroleum set-aside programs require each major oil company supplying the state to reserve (set-aside) a fixed percentage of petroleum products that are projected to be delivered to the state for final consumption each month. This set-aside would then be allocated for emergency needs to suppliers and in turn customers in amounts designated by the state agency administering the program. This would only be used in the most serious longer-term shortages.
Use of Alternative Fuel Vehicles Programs	States and local governments that have a significant number of alternative fuel vehicles (AFVs) in their fleets may have an opportunity to maximize the use of these vehicles during shortages of gasoline and diesel fuel. States could consider a number of options around prioritizing AFV usage and alternative fuel procurement during petroleum shortages.
State Weight Limit Waivers for Petroleum Tanker Trucks	The maximum gross weight limit that states must enforce on the federal Interstate Highway System is 80,000 pounds, unless a lower weight is derived from the bridge formula, or a higher weight is grandfathered. However, governors under emergency declaration may have the authority to waive weight limits for petroleum tanker trucks. Such measures would only apply on a state-by-state basis and should trucks have to go out of state for fuel supplies, they would be subject to weight limits in the states through which they would need to pass. The plan should identify ways that relevant stakeholders will receive information about waivers on a timely basis.
Retail Gas Station Priorities for Essential Services	In recent years some state and local governments have become more reliant, or entirely reliant, on retail gas stations to meet their needs. Prioritizing gas station supplies for essential services may help ensure that essential public service needs supplied by retail gas stations can be met during a serious fuel shortage.
Emergency Generators and Transfer Switches for Retail Gas Stations	Several states have implemented programs for ensuring there is adequate gasoline supply along evacuation routes and for response and recovery from power outages. The options typically address either prewiring gas stations to be able to accept generators if there is a power outage or programs that would install on-site generators or provide a cache of generators to deploy to select retail locations.
Contractual Provisions for Fuel Supplies in an Emergency	Prior to any disruption, states may wish to consider training critical user organizations about the issues and techniques related to balancing price and secured contracting, since some organizations opt to reduce the price of fuel through spot contracts instead of relying on a contract, which may leave them vulnerable during shortages when spot-contract vendors are unable to acquire fuel in the market. States may also want to explore developing contracts that have provisions for additional emergency fuel supplies emergencies during a fuel shortage.
Expanded State Fuel Storage and Strategic Reviews	A number of states have bulk fuel storage locations that are used to refuel state vehicles. States may wish to consider creating bulk storage locations for petroleum-based fuels or expanding capacity at existing storage locations to have additional fuel available in case of a shortage.

This guide also includes a number of federal measures that states may have sought assistance under, including:

- **Internal Revenue Service Dyed Diesel Fuel Waivers.** Most dyed diesel fuel sold in the country comes with a red coloring. By law, this dyed diesel fuel is only for use in off-road vehicles or non-highway use, such as farm tractors, heavy construction equipment, home heating, and generators; on-road vehicles found to have red diesel fuel in their fuel tanks may face enforcement action). The Internal Revenue Service (IRS) imposes a highway excise tax of 24.4 cents per gallon on diesel fuel sold for on-road use; dyed diesel fuel used is not ordinarily subject to this tax. For example, in the aftermath of Hurricane Sandy, the states of New Jersey, New York, and Pennsylvania experienced shortages of clear (non-dyed) diesel fuel for highway use and needed to tap into supplies of dyed diesel fuel. To free up this additional supply of diesel fuel the IRS temporarily waived the tax penalty when dyed diesel fuel was sold for use or used on the highway.
- **Jones Act Waivers.** The Merchant Marine Act, also known as the Jones Act, prohibits any foreign vessels from transporting goods between U.S. ports. However, during emergency responses, resources, including shipping vessels, can be scarce. The Jones Act can only be waived in the interest of national defense. When the Jones Act is waived, foreign vessels and U.S.-flag vessels that are not coastwise qualified are authorized to transport goods between U.S. ports.
- **Federal Energy Regulatory Commission Orders Directing Priority Propane Pipeline Shipments.** The Federal Energy Regulatory Commission (FERC) has the ability to prioritize shipments of propane and other liquid fuels through pipelines in the event of emergencies and supply shortages. FERC can invoke its authority, provide an explanation of why it is using its authority, and specify the length that this change will remain in place.
- **Pipeline and Hazardous Materials Safety Administration Special Permits to Modify Regulatory Compliance.** The Pipeline and Hazardous Materials Safety Administration (PHMSA) is charged with ensuring the safe transportation of liquid fuels and other hazardous materials through the establishment of national policy, the enforcement of standards and regulations, education, and research to prevent incidents. During an incident, PHMSA has the ability to issue an emergency special permit without notice and comment or hearing if the Associate Administrator of Pipeline Safety determines that such action is in the public interest, is consistent with pipeline safety, and is necessary to address an actual or impending emergency involving pipeline transportation. Once an emergency special permit request is received, PHMSA will determine on a case-by-case basis what duration is necessary to address the emergency. Emergency special permits may be renewed upon application to PHMSA only after notice and opportunity for a hearing on the renewal.
- **Federal Petroleum Product Reserves.** The U.S. Department of Energy (DOE) administers the Northeast Gasoline Supply Reserve and Northeast Homes Heating Oil Reserve, which may be tapped in the event of an emergency or shortage of fuel in that area. The fuel is then bid out to interested buyers and used to supplement existing fuel supplies in that region to meet the needs for home heating, first responders, and other critical requirements.
- **Emergency Fuel from the Defense Logistics Agency.** The Defense Logistics Agency (DLA) uses existing bulk fuel contracts to deliver and store energy products—primarily jet fuel, but

also gasoline and diesel—at National Guard locations in every state other than Washington and New Mexico, and can leverage existing fuel transportation resources (funding, marine tanker leases, and truck/barge/pipeline tender agreements) to reposition fuel stored at other U.S. Department of Defense (DoD) installations in support of any U.S. Northern Command disaster response. DLA can use this funding for fuel deliveries to resupply DoD or National Guard locations supported by existing DLA contracts. States that would like to include this measure as part of their petroleum contingency plans will need to have the ability to assess the petroleum supply situation in a disaster, determine fuels and quantities needed and the delivery locations, and available storage capacities. This should be further discussed in advance as part of the planning activity with the Federal Emergency Management Agency and DLA to make certain that requirements and response times and costs are all well understood along with the process for making these requests as part of the planning process.

Finally, in a fuel shortage, it is important to encourage consumers to voluntarily reduce their fuel use to help mitigate the impacts of the shortage. Since a considerable amount of fuel is used in the daily commute to work, programs such as ridesharing, carpooling, telecommuting, and increased use of mass transit offer alternatives that might be encouraged. If the fuel shortage is impacting primarily residential heating fuels such as propane and home heating oil, the public information programs should focus on home energy saving recommendations and preparing for winter by assuring residential fuel tanks are full prior to the beginning of the heating season.

As always, the policies and programs detailed above should be considered within the individual context of a state's petroleum infrastructure, threats, and constraints. Just as every state has its own unique petroleum infrastructure; it will face its own set of challenges in meeting the needs and setting priorities in a petroleum shortage regardless of its cause. Emergency planners should carefully choose and adapt the policies and programs listed in this document for their own petroleum shortage assurance plans.

II. INTRODUCTION AND PURPOSE OF THIS GUIDE

This guide is designed to provide helpful information for emergency planners, state decision makers and their private sector partners. It highlights the multiple dimensions of petroleum shortage response planning and distills them into easy-to-follow guidance that emergency planners will find valuable as they navigate the process of creating or updating state petroleum response plans in conjunction with the private sector. This guide is not a substitute to developing a state specific plan.

This guide also provides information on how to create or update a state petroleum assurance plan. It delves into the nuances of what a state should consider when creating its response programs for when an event has triggered a serious energy shortage that requires specific governmental actions to facilitate response, restoration, and recovery. The guide addresses those steps and describes in detail the contingencies, measures, and programs that state governments can implement quickly and effectively if they are well developed in advance. The guide also provides additional detail on planning elements such as understanding energy infrastructures and the petroleum and liquid fuels supply chain and risk assessment. It includes specific examples on detailed programs and measures, as well as other primarily federal actions that are typically not as detailed but that should be elaborated in greater depth if included within state plans. It is up to each state to consider what to include in their plans. However, greater multi-state consistency in programs and measures makes state plans more likely to be successfully implemented compared to more disjointed approaches. These steps should be carefully reviewed and accepted by state government and the petroleum and liquid fuels industries.

Notably, while this document focuses on petroleum per se, there is application for all liquid fuels, including the range of refined petroleum products (e.g., gasoline, jet fuel, heating oil, and diesel), liquefied petroleum gas (propane), ethanol, and biodiesel. States should carefully consider which fuels to include in emergency preparedness and response plans.

States have typically addressed planning for petroleum shortages by utilizing two different methods. The first method is to develop a stand-alone plan that addresses the state's petroleum shortage response in the event of an emergency. The second method is to integrate petroleum shortage response planning within the context of the state's overall energy assurance plan to create an integrated plan. Both the stand-alone plan and integrated plan methods can produce effective and pragmatic response plans to petroleum shortages; it is up to state decision makers to determine which method is most sensible within the context of their state's specific petroleum infrastructure, resources, and existing planning efforts.

In recognition that states have multiple pathways to plan for petroleum shortages, this guide is divided into two parts, each designed to assist with a different pathway for developing a state petroleum shortage response plan.

- The first part of this document (Section III) discusses the process by which a state should update the plan and its contents to remain current with changes in organizational structure, staffing, and program coordination. It also provides information on utilizing data and methods for monitoring petroleum supply, conducting petroleum risk assessments, coordinating the plan with intrastate and multistate bodies as well as with other state petroleum assurance plans, and assuring essential public needs. In an integrated plan this information would be grouped with similar content that addresses these same topics for electricity and natural gas.

- The second part of the document (Section IV) focuses on providing a greater depth of detail for state and federal programs and measures. In an integrated state energy assurance plan this detail would be used to strengthen the petroleum response section. In a stand-alone document, this same detail would be used in the response section of the plan. In either case it includes information on weight limit waivers, gas station prioritization, emergency generators, and contractual provisions, as well as a number of relevant federal actions that states should consider as part of overall disaster response.

With a number of states set to revise their plans or already engaged in the revision process, sound guidance on petroleum shortage response planning is more important than ever, particularly in light of the potential for future disasters that may significantly impact the petroleum supply chain. Emergency planners and state decision makers can use the information in this document to create a smart, effective response plan that is well-coordinated and actionable. With thoughtful, comprehensive petroleum shortage planning, states will be prepared to act decisively the next time a disaster of significant proportions occurs in their area.

When responding to petroleum supply disruptions, the state's response generally falls into two sets of actions. The first involves assessing the consequences, severity, and duration of the disruption to determine the appropriate level of response. This is a vital first step in the decision-making process. There may also be anticipatory steps — in advance of emergencies that can be anticipated, e.g., Hurricane Irma — that would set in motion a series of actions to identify existing supplies, anticipate increased demand, and allow time to put in place emergency resupply plans that are proactive rather than reactive. The second set includes programs and measures with the potential to be useful in response to specific circumstances if they become apparent.

In the first set of actions, depending on the nature of the problems, no further actions may be warranted other than stepped up situation monitoring. In a developing or worsening situation, such as a natural disaster that impacts energy resources, an ad hoc response may be required at the request of energy consumers or suppliers. If a state has activated its state emergency operations center (SEOC) and Emergency Support Function (ESF) - 12 (Energy), then these types of events can be responded to as needed. If the SEOC has not been activated, the state agency responsible for responding to petroleum shortages may need to address and work to resolve the problem.

During Hurricane Harvey Florida took actions that generally followed this pattern (Example 1). Additional actions were taken that fell into the second category such as waivers of the U.S. Environmental Protection Agency (EPA) fuel specifications and preexisting generator hook-up requirements for retail stations on evacuation routes.

Usually, this is the primary response for some types of events and could include addressing power restoration for critical infrastructure or arranging for fuel supplies that may be needed for response activities absent a larger fuel shortage. Another example could be a storm damaged marine port that provides substantial supplies to a region such as New England, Florida, Gulf Coast states, or the West Coast. States working with the Coast Guard might request priority restoration of port facilities to bring in needed fuel or emergency supplies. In some cases, cascading interdependencies may require a response that benefits from having the capacity, knowledge, and industry contacts established in advance to address these types of problems.

The second set of actions is when an event has triggered a serious energy shortage that requires specific government actions to facilitate response, restoration, and recovery to assure essential public services are delivered and to determine additional steps as necessary. Such circumstances call for clearly defined contingency measures as conditions and consequences warrant.

EXAMPLE I. FLORIDA'S INITIAL FUELS RESPONSE TO HURRICANE IRMA

Pre-storm the emergency coordinating officer for Emergency Support Function 12 - Fuels started working to monitor and coordinate fuel deliveries. All emergency support functions were notified they would be sharing fuel. The Florida Petroleum Marketers Association and Convenience Store Association were asked to assist in moving fuel into the major evacuation areas pre-evacuation by calling on their members.

The governor worked with the industry to determine fuel needed to make the evacuation successful. Police escorts for truckers were offered both pre-storm and post-storm. Also, the governor offered police escorts for retail gas station employees who stayed open late pre-storm.

Post-storm fueling stations were set up along the interstate at weigh stations so emergency responders could enter the state. Additional fueling locations were set up by the state's emergency fuel contractor with input from counties and urban search and rescue units.

FEMA was asked to assist in providing more fueling locations for power companies, communication companies, counties, and mass care. We worked with the Department of Education contact in the state emergency operations center to use college campus parking lots as fueling locations.

In the future, responding to the fuel demand during an evacuation and when residents return could be further improved. During the evacuation, there was approximately seven times the normal demand spread over three or four days. Petroleum suppliers could not keep up with demand because there were not enough trucks and drivers or loading racks at terminals. (It was not a lack of fuel supplies in the state of Florida.) Truckers at the terminal racks were backed up as much as three hours to load, versus the normal time of about 40 minutes.

Source: Florida Division of Emergency Management, Bureau of Response, Infrastructure Branch

III. GUIDANCE ON STRUCTURE AND CONTENTS OF STATE PLANS

The following additional information and guidance is provided to improve preparedness and facilitate greater detail in state energy assurance plans and supporting planning documents. Plans for responding to petroleum supply disruptions and shortages as well as any other disruption to energy resources need to contain information that addresses the following key areas.

A. DATES AND LINKAGES TO OTHER PLANS

The plan should include a table listing of the date the plan was originally created and all subsequent reviews and updates, and the schedule for future reviews and updates. This page should also list any other state planning documents that support the plan including a brief description of each document, its purpose, and a hypertext link to the document.

A state's petroleum response plan may be directly part of the overall energy assurance plan or it may be a separate stand-alone document that provides further support and details for the overall energy assurance plan. Regardless of how it is structured, it should include an explanation of how it relates to the state's overall emergency management plan. If there are elements within the petroleum plan that are relevant for local governments, the relationship to those local government response plans should also be described and referenced. These other plans should be available and potentially included and referenced as attachments to the petroleum response plan or the energy assurance plan.

It should be recognized that the petroleum response plan would be activated if the petroleum industry is unable to provide needed supply due to events that have disrupted the supply chain and where they may have asked state government for assistance. In addition, if petroleum supplies are disrupted significantly due to a large-scale disastrous event, these plans might also be triggered. In any case it is important to understand the interface between private sector plans and state and local government plans. States should be aware of plans that oil suppliers may have to prevent or resolve potential disruptions in their ability to supply fuel.

Coordination with the federal government, other state governments, local governments and the petroleum industries should be detailed in the communications and information sharing sections of the plan. There are actions that can be taken at the state and federal levels that need to be coordinated. For example, waivers of U.S. Environmental Protection Agency (EPA) fuels specification may require action by the states for specification that may be solely adopted under state statute or rules as part of their air quality state implementation plan. In addition, there should be a description that could be included in this portion of the plan or as part of the implementation steps for specific measures to coordinate with other states in the region that may be affected by the event. Ideally, states faced with similar consequences from petroleum shortages should coordinate the implementation of their responses. For example, if there are significant lines at retail gas stations due to a shortage and it affects adjacent metropolitan areas in two different states, it will be more effective if the two states implement the same response measures in the same way at the same time.

B. ORGANIZATIONAL CHANGES

Update any organizational changes that might have affected the roles and responsibilities of state agencies as described in the existing energy assurance plan since its last issue.

C. HISTORICAL PETROLEUM SHORTAGES AND LOCAL, STATE, AND FEDERAL RESPONSES

This section should document and provide historical context for any petroleum shortages, including events and factors that caused the shortages, as well as impacts of the shortages on the price, supply, or availability of petroleum products and liquid fuels. For each event describe all state actions that were taken in response and reference any after-action reports which were prepared. Include:

- Events that may be limited such as the 2013-14 propane shortages that impacted large areas of the Midwest and the Northeast.
- Shortages caused by natural disasters that impacted petroleum supplies, such as Superstorm Sandy⁴ in 2012 that affected New York and New Jersey.
- Serious petroleum supply shortages following the back-to-back Hurricanes Gustav and Ike in September 2008 that made landfall 11 days apart in the Gulf Coast resulting in significant damage to one of the major petroleum and natural gas producing regions of the U.S.⁵
- Hurricanes Harvey and Irma in 2017, which caused significant damage to electric and petroleum infrastructure.

States might also describe in this section any outcomes of energy emergency exercises that examined the impacts and responses to petroleum shortages. This information is vitally important for documenting and retaining institutional knowledge that is critical for staff new to this area of responsibility. It can also draw from the supply disruption tracking process that should be part of any well-developed energy assurance plan and that was a required element of the federal planning grants that became available in 2010.

D. STATE AGENCIES' ROLES AND RESPONSIBILITIES AND CONCEPT OF OPERATIONS PLANS

This section should clearly describe the roles of each agency that is responsible for responding to a petroleum shortage. It should include a description of any broad or specific authorities to deal with petroleum shortages. It should also include an organizational chart that shows the relationships between state agencies and the lines of authorities. It should address the delegation of authorities by the state under the National Incident Management System⁶ at a state level and the delegation of responsibilities. For examples, see the Maryland Energy Assurance Plan. Chapter 8, pages 8-11 to 8-14 (PDF file pages 251-254)⁷. Also see the Texas Energy Assurance Plan. Emergency Management Plan, pages 16-25⁸.

⁴ U.S. Energy Information Administration. New York/New Jersey Intra Harbor Petroleum Supplies Following Hurricane Sandy: Summary of Impacts Through November 13, 2012. November 2012.

https://www.eia.gov/special/disruptions/hurricane/sandy/pdf/petroleum_terminal_survey.pdf

⁵ U.S. Department of Energy, et. al. Southeast Petroleum Disruption and After-Action Workshop Report, January 14-15, 2009.

http://southeastpetroleum.govtools.us/documents/SoutheastPetroleumDisruption_Report.pdf

⁶ Federal Emergency Management Agency. National Incident Management System. <https://www.fema.gov/national-incident-management-system>

⁷ Maryland Energy Administration, et al. Maryland Energy Assurance Plan. July 2012.

<http://energy.maryland.gov/Documents/MarylandEnergyAssurancePlan.pdf>

⁸ Public Utility Commission of Texas, et al. Texas Energy Assurance Plan. November 2012.

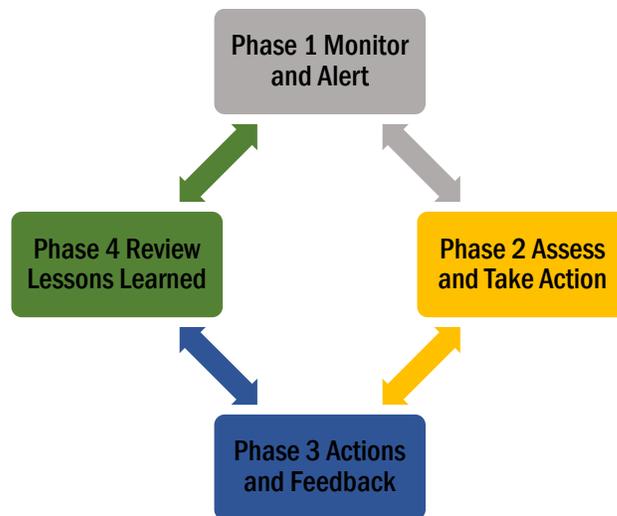
http://www.puc.texas.gov/industry/electric/reports/energy_assurance/Energy_Assurance_Plan-Texas.pdf

This section should describe the agencies and personnel responsible for Emergency Support Function - 12 (Energy)⁹ as provided for under the National Response Framework¹⁰ and how they are activated. It should include a description of their functions, the agency staffing responsibilities, and lines of command. Include the title of the position of individuals designated as energy emergency assurance coordinators¹¹ for the state. This should include the capability to facilitate the movement of petroleum products to disaster areas by coordinating with the petroleum industry and other state agencies as needed. In most states, this would be done through the state emergency operations center.

Concept of operations plans are the operational plans that describe actions that key positions (individuals) would take as an event escalates and becomes more serious in nature, and the roles of any coordinating teams or organizational structures that may be stood up or established as part of the emergency response. For one example, see the California Energy Assurance Plan, Appendix A¹² that provides operating guidelines that describe the current general responsibilities of each position in the California Energy Emergency Management Center, as well as current recommended actions for each phase of an energy emergency.

Figure 1 below shows the four phases of an emergency.

FIGURE 1. THE FOUR PHASES OF AN EMERGENCY



The flow chart on the following page (Figure 2) represents an additional way in which plans can be made more operational using a decision-tree type of approach.

⁹ U.S. Department of Energy. Emergency Support Function #12; Energy Annex. May 2013. <https://energy.gov/oe/downloads/emergency-support-function-12-energy-annex>

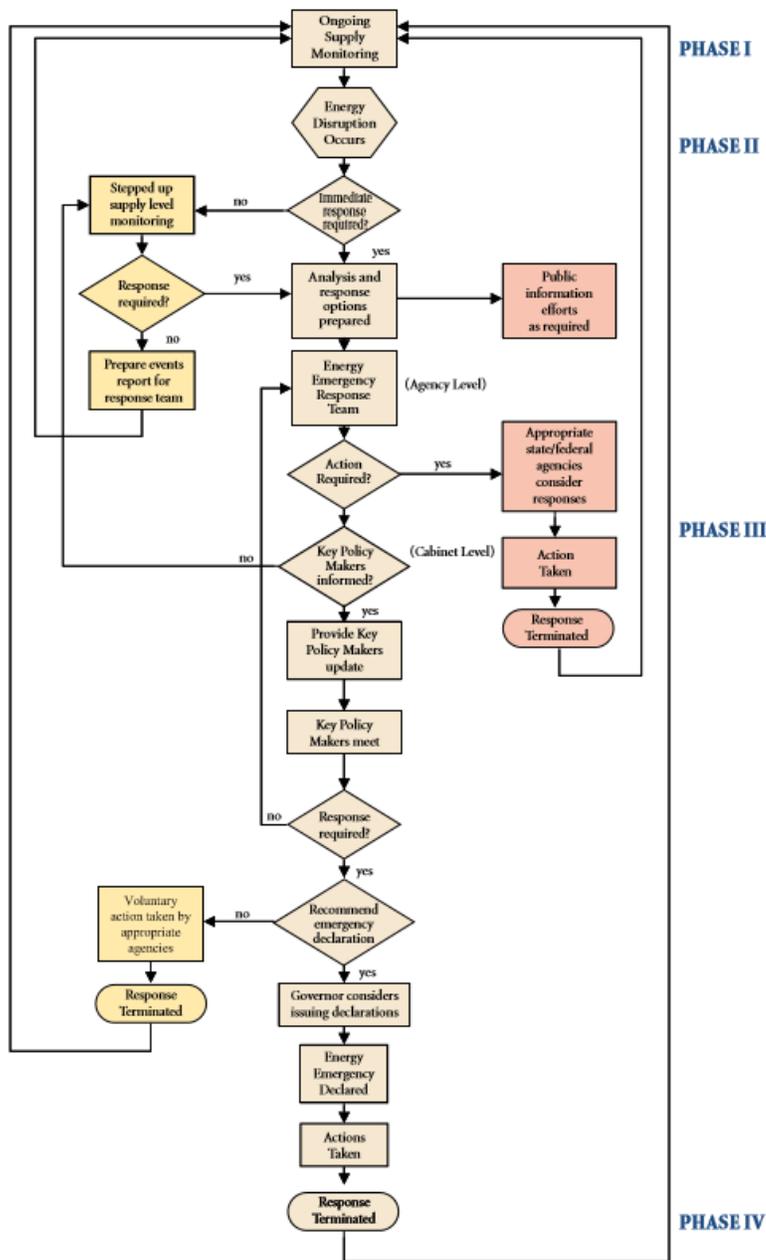
¹⁰ U.S. Department of Homeland Security. National Response Framework, Second Edition. May 2013. https://www.fema.gov/media-library-data/20130726-1914-25045-1246/final_national_response_framework_20130501.pdf

¹¹ See National Association of State Energy Officials, www.naseo.org/eeac

¹² California Energy Commission. State of California Energy Assurance Plan. June 2014. <http://www.energy.ca.gov/2014publications/CEC-600-2014-006/CEC-600-2014-006.pdf>

FIGURE 2. ENERGY EMERGENCY RESPONSE FLOW CHART

Once an energy emergency has been identified and responders have been notified, the following response flow chart illustrates the suggested steps that should be taken.



Source: National Association of State Energy Officials. State Energy Assurance Guidelines, Version 3.1. Appendix F: Petroleum Fuel Set-Aside. December 2009. http://www.naseo.org/Data/Sites/1/documents/energyassurance/eaguidelines/State_Energy_Assurance_Guidelines_Version_3.1.pdf

E. COORDINATION AND INFORMATION SHARING MECHANISMS

In situations where an emergency has not yet been declared at a state level, coordination should be predefined as part of the roles and responsibilities of the appropriate state agencies.

Coordination also might be provided through organizational structures that could be activated and include individuals from the responsible agencies. These might be called emergency management teams, emergency response organizations, task forces, coordinating centers, etc.

Once an emergency has been declared, these organizational groups may still continue to function; however, they would normally fall under the state's incident command structure typically coordinated through state emergency operations centers. State intelligence fusion centers, particularly if they maintain a critical infrastructure protection desk, and the public utility commission might also be important parts of this communication chain. In either case they would provide situational awareness and periodic reports to quantify the severity, geographic location, and consequences of the fuel emergency, along with state and local response actions.

In an undeclared emergency, these internal communications and situation reports should be distributed to a predefined internal state government distribution list that should be included as an appendix to the plan. If these reports contain any sensitive information they should be on separate pages from information that is public in nature and labeled according to state practice, e.g., designated as "For Official Use Only (FOUO)." In so doing it's important to assure that they fall under appropriate exemptions from disclosure as might exist under a state's freedom of information act or what is referred to in some states as sunshine or public information laws. It might also be useful to diagram this information-sharing flow reflecting the chain of command.

When the state emergency operations center is activated, most have some type of incident management software that is accessible across state agencies and by local governments. One of the more common is a system called WebEOC. These systems can be used as a vehicle for disseminating situation reports and sharing response actions. These systems may have the ability to separately manage information that is public versus internal. Procedures for how these systems will be used should be described in detail in the plan.

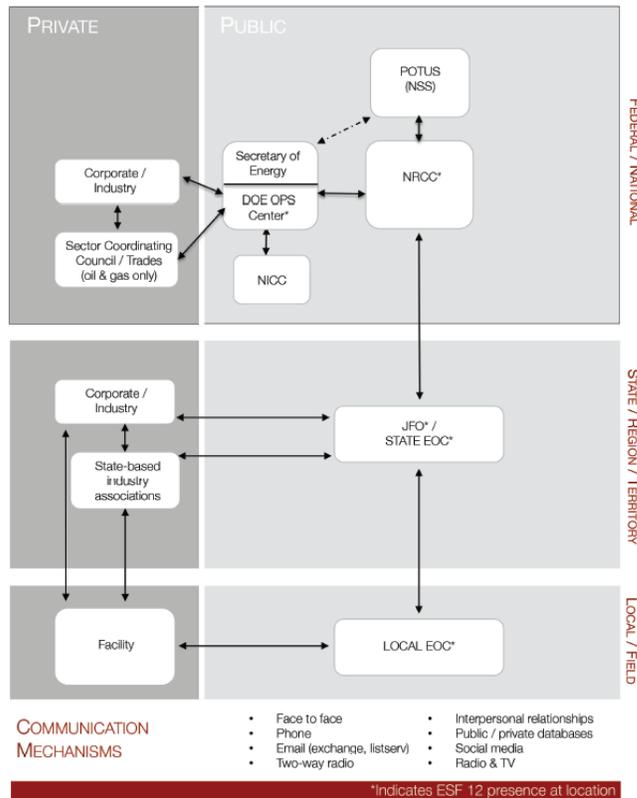
These assessments, information and situation reports should flow to the joint information center or the designated public information officer. Sensitive information should be redacted or restated in a less specific manner for the benefit of public information updates.

The energy emergency assurance coordinator program, a federal and state coordinated communications protocol, is an important mechanism that allows for multistate regional coordination when the emergency is multistate in nature. States are strongly encouraged to use this mechanism to share information with states in the region even though they may not be impacted so that they are aware of actions your state may be taking. For example, in a declared emergency in all or any part of a state, federal motor carrier safety rules may be waived including the provisions dealing with driver-hour limitations and, if so, trucks may be moving through other states in your region to reach the area in which an emergency has been declared.

It is important that these other states be aware of such actions. It is also helpful for them to be aware of your assessment of the situation, its severity, and geographic scope, and any potentially serious consequences that have occurred and actions taken by the state in response. For more information see

the Energy Emergency Assurance Coordinator Agreement¹³ signed by the U.S. Department of Energy, the National Association of State Energy Officials, the National Association of Regulatory Utility Commissioners, and the National Emergency Management Association.

FIGURE 3 ESF 12 OIL AND GAS INFORMATION FLOW: INDUSTRY PERSPECTIVE



Information flow charts are another means to help show how information can be shared. The chart to the below (Figure 3) is an example from the American Petroleum Institute’s Oil and Natural Gas Industry Preparedness Handbook¹⁴.

The emergency contact list should be maintained and updated annually, including any changes to the state’s energy emergency assurance coordinator, with a plan for updating the list formalized and assigned to staff. This list should be updated any time there is a significant change organizationally, such as during a change in gubernatorial administrations, or in roles and responsibilities. The contact list should not be included in the state energy assurance plan but maintained as a separate document. It should be available electronically and in paper formats in the office and on smartphones, with key staff maintaining a copy at home. If the contact list contains 24-hour points of contact including home phone numbers or personal cell phones, the list should be treated as confidential

and protected from disclosure if provided through an exemption under the state’s freedom of information act. For more information see [Appendix D: Emergency Contact Lists](#).

F. STATE PETROLEUM INFRASTRUCTURE AND SUPPLY CHAINS

Understanding petroleum infrastructures and supply chains is a fundamental capability required for states to effectively respond to petroleum supply disruptions. State agencies that have staff responsible for responding to petroleum shortages must be knowledgeable about the petroleum infrastructure that supplies their state both within their states and other states and regions. The importance of this capability was highlighted in the findings of the National Petroleum Council’s report on Enhancing Emergency Preparedness for Natural Disasters. This report recommended that:

¹³ See National Association of State Energy Officials, www.naseo.org/eeac/. A training webcast on the roles of energy emergency assurance coordinators is also available on the website.

¹⁴ American Petroleum Institute. Oil and Natural Gas Industry Preparedness Handbook. April 2016. <http://www.api.org/~media/Files/Policy/Safety/ONG-Industry-Preparedness-Handbook-v2.pdf>

“It is critically important for government emergency response organizations to have a baseline understanding of the dynamic nature of the oil and gas supply chains. There appear to be varied levels of understanding within government agencies of the complex nature of oil and gas (O&G) infrastructure, interconnectivity across geographic regions, interdependencies, and industry’s response capabilities. A common understanding across these organizations can be achieved through increased training and education. A functional knowledge of the O&G supply chains and energy response plans is needed by emergency response teams, private and public, to prepare for and effectively and quickly respond to supply chain disruptions.

“The O&G supply chains are complex, highly dynamic, integrated geographically, and are interdependent with other critical infrastructure — most notably the electric sector. Furthermore, the supply network is changing significantly with new crude oil and natural gas production. Government understanding of the supply chains and their interrelationships is required to perform an adequate situation assessment and to constructively respond to private sector requests. For example, federal and state government consideration of fuel waiver requests requires an understanding of how a fuel shortage in one area can spread to other areas. This supply chain interconnectivity was illustrated during hurricanes in 2005 and 2008, when storm damage from severe winds and significant flooding on the U.S. Gulf Coast, with its heavy concentration of refining capacity, disrupted local fuel supply as well as fuel supply to the U.S. East Coast, which the Gulf Coast region normally supplies. Similarly, in 2012, the storm damage from Superstorm Sandy reduced product demand along the U.S. East Coast, and created product containment concerns for the Gulf Coast refiners that normally supply the East Coast. In addition, storm damage can significantly impact community infrastructure such as roads, utilities, and businesses, which can impede the pace and increase the complexity of recovery.”¹⁵

There are number of excellent resources available for states to better understand their petroleum supply infrastructure and supply chain. A number of these are identified in [Appendix A: Description of States’ Petroleum Infrastructure and Supply Chains](#) of this guide. It is recommended that states develop and compile this information for inclusion in an appendix to their energy assurance plan. By including this in an appendix it will be easier to update rather than if it is in the body of the plan where it might appear in multiple locations. This will make it easier for future updates and it will be more readily accessible to be used as a training and exercise tool.

States should include and maintain at least the following petroleum supply infrastructure information:

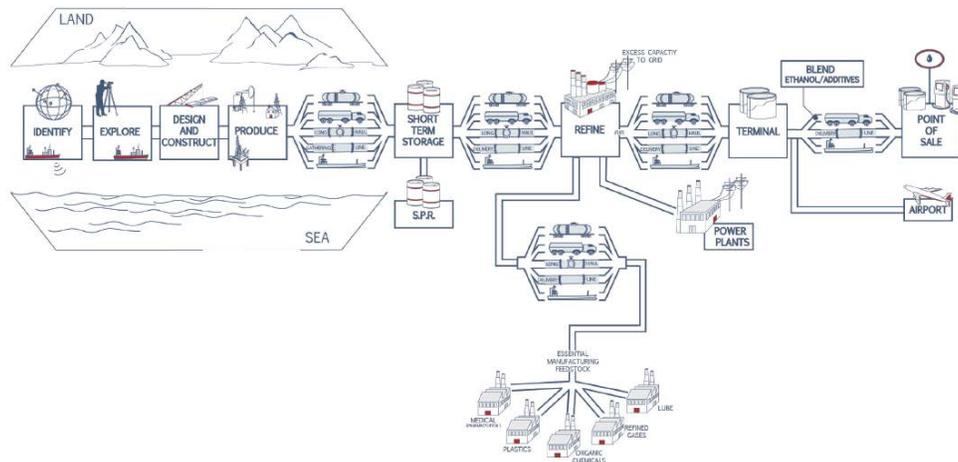
1. Annual summary of petroleum products produced in and imported to the state, consumption of petroleum products (including ethanol), and historical state and regional stock levels of petroleum products. Data is available on a monthly basis from the U.S. Energy Information Administration (EIA)¹⁶. It is also important to understand seasonal supply and demand patterns.
2. A description of the state’s petroleum supply chain that can begin with a generalized illustration such as shown in Appendix A and also as shown in the American Petroleum Institute’s Oil and Natural Gas Industry Preparedness Handbook¹⁷. See Figure 4 on the following page for the Critical Elements of the Oil Supply Chain from the handbook, which can be included in your state’s plan.

¹⁵ National Petroleum Council. Enhancing Emergency Preparedness for Natural Disasters: Government and Oil and Natural Gas Industry Actions to Prepare, Respond, and Recover. December 18, 2014. http://www.npc.org/reports/NPC_EmPrep_Report_2014-12-18.pdf

¹⁶ The State Energy Data System (SEDS) is the source of the U.S. Energy Information Administration’s comprehensive state energy statistics. <https://www.eia.gov/state/seds/>

¹⁷ American Petroleum Institute. Oil and Natural Gas Industry Preparedness Handbook. April 2016. <http://www.api.org/~media/Files/Policy/Safety/ONG-Industry-Preparedness-Handbook-v2.pdf>

FIGURE 4. CRITICAL ELEMENTS OF THE OIL SUPPLY CHAIN



3. For new or less experienced staff in the energy field, the oil and gas section of EIA’s Energy Explained: Your Guide to Understanding Energy¹⁸ [webpage](#) can be useful to learn the basics.
4. EIA’s description of regional petroleum product flows and infrastructure is also very useful. States should include a map of the region in your plan. Please read these reports for your region and abstract other elements you may find useful. Figure 5 on the next page is an example of the Eastern Midwest Refined Petroleum Infrastructure. Following are links to these reports:
 - a. [East Coast and Gulf Coast Transportation Fuels Markets](#)¹⁹
 - b. [West Coast Transportation Fuels Markets](#)²⁰
 - c. [Midwest and Rocky Mountain Transportation Fuels Markets](#)²¹
5. A list of refineries both in-state and out-of-state that supply the state including their capacity and some estimates of the percentage yield of petroleum products produced. (Refiner yields are the percentage of refined products produced from a barrel of crude oil.)
6. A list of petroleum terminals in your state that also includes terminals outside your state that are used to supply your state with refined petroleum products, including LPG and ethanol and biodiesel. Information for each terminal (ideally) should include:
 - a. Terminal location/address and a clear recent map or visual;
 - b. Terminal owner and contact information (onsite and corporate);
 - c. Pipelines that can access the terminal and pipelines which the terminal supplies;
 - d. Marine receiving or loading capability (berths, draft, vessel size, etc.);
 - e. Railcar receiving or loading capability – in particular unit train vs manifest trains;

¹⁸ U.S. Energy Information Administration. Energy Explained: Your Guide to Understanding Energy. <https://www.eia.gov/energyexplained/index.cfm>

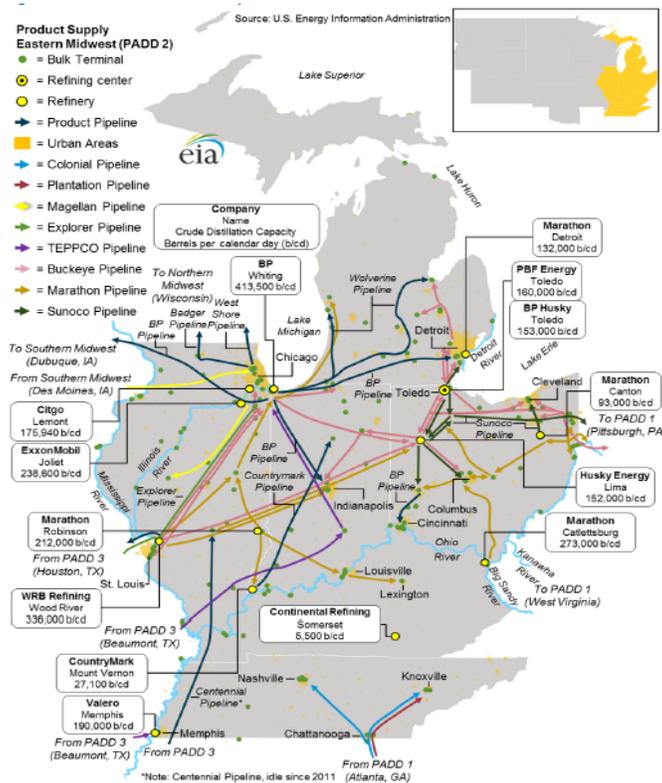
¹⁹ U.S. Energy Information Administration. East Coast and Gulf Coast Transportation Fuel Markets. <https://www.eia.gov/analysis/transportationfuels/padd1n3/>

²⁰ U.S. Energy Information Administration. West Coast Transportation Fuel Markets. <https://www.eia.gov/analysis/transportationfuels/padd5/>

²¹ U.S. Energy Information Administration. Midwest and Rocky Mountain Transportation Fuel Markets. <https://www.eia.gov/analysis/transportationfuels/padd2n4/>

- f. Average terminal throughput in barrels per day (by petroleum products);
 - g. Terminal storage capacity by volume for each product;
 - h. Terminal loading rack, positions and ability to receive by truck. Some terminals do not load trucks and are marine loading only; and
 - i. Availability of backup generation for each terminal.
7. A map showing all petroleum product pipelines in the state and region (see Figure 5 below for example), including the diameter of the lines. Also, it is useful to know the general direction of

FIGURE 5. EASTERN MIDWEST REFINED PETROLEUM INFRASTRUCTURE



Source: U.S. Energy Information Administration. Eastern Midwest Refined Petroleum Infrastructure. <https://www.eia.gov/analysis/transportationfuels/padd2n4/>

flow capacity utilization and throughput (average barrels per day).

- 8. Other demographic information that may prove to be useful are the number of truck and car registrations by county and some typical road traffic flow information usually available through the state's Department of Transportation (DOT).
- 9. Current and historical retail prices of gasoline, diesel fuel, propane and Number 2 home heating oil.

A number of states have completed detailed studies of their petroleum infrastructure and most state energy assurance plans include some or all of this information. Check your state plan to see how well developed this information is and if there are gaps or if it needs to be updated. There should be a regular schedule for periodically reviewing and updating this information. Following are three examples:

1. New York State Energy Research and Development Authority's Petroleum Infrastructure Studies.²²
2. State of California Energy Assurance Plan, Chapter 6: Petroleum and Transportation Fuels Resources, pages 111-122 (PDF file pages 126-137).²³
3. Understanding Energy in Montana: A Guide to Electricity, Natural Gas, Coal, and Petroleum Produced and Consumed in Montana, pages 96-119, (PDF file pages 122-145).²⁴

G. DATA AND METHODS FOR MONITORING PETROLEUM SUPPLY, DEMAND, AND PRICES

State energy agencies including state energy offices and public utility commissions often have staff responsible for monitoring energy markets. There is a considerable amount of very detailed data available that allows states to have a reasonable understanding of market conditions and changes. Market indicators, along with an understanding of the operation of the petroleum infrastructure, are critically important to quantifying the impacts of potential petroleum supply disruptions. Typically, this will involve tracking time series data where departures from normal ranges can be important signals of the potential for possible supply shortfalls. Several sources are publicly available in addition to subscriptions to trade press.

It is important to note that numerous companies are involved in the petroleum supply chain, from exploration to refining to pipeline, rail and marine shipments to terminals and at the local level, retailers and distributors. Each of these activities is often carried out by a separate company operating within a market segment. Antitrust laws limit the extent to which companies can share information with each other on pricing, supply, and production capabilities. Thus, other institutions such as the American Petroleum Institute, the U.S. Energy Information Administration, and states that engage in primary data collection are important sources of information that can help provide an aggregate view of current petroleum market conditions in your state and region. Of course, data sets are different and are influenced by various factors.

One of the most complete sources of public energy data and markets is the U.S. Energy Information Administration (www.eia.gov). Not only are supply and price data available on the website, but there is often information about energy markets that can assist in analyzing and quantifying the market data. Also, EIA often produces topical studies on a wide range of issues.²⁵

Customized news alerts are available from several public sources, including Bing News (bing.com/news), Google News (news.google.com), and Yahoo News (yahoo.com/news). Potential custom news search parameters might include:

- Crude oil petroleum product pipeline leak explosion [city or state or region]

²² New York State Energy Research and Development Authority. Petroleum Infrastructure Studies.

<https://www.nyserda.ny.gov/About/Publications/EA-Reports-and-Studies/Petroleum-Infrastructure-Studies>

²³ California Energy Commission. State of California Energy Assurance Plan. June 2014. <http://www.energy.ca.gov/2014publications/CEC-600-2014-006/CEC-600-2014-006.pdf>

²⁴ Montana Department of Environmental Quality. Understanding Energy in Montana: A Guide to Electricity, Natural Gas, Coal, and Petroleum Produced and Consumed in Montana. 2010. <http://leg.mt.gov/content/Publications/Environmental/2009-understanding-energy.pdf>

²⁵ U.S. Energy Information Administration. Analysis and Projections. <https://www.eia.gov/analysis/>

- Hurricanes impacts on fuel supply
- Refinery fire/explosion and/or shutdown [city or state or region]
- Power outage [city or state or region]²⁶

Subscriptions to petroleum industry trade press can also be useful to monitor developments in the oil sector. State contacts that are designated as EEACs may also submit a request to NASEO for access to the U.S. Department of Homeland Security's Homeland Security Information Network (HISN) to obtain event specific information and alerts and GIS resources that map energy infrastructure including petroleum.

Combining these sources (EIA data and analysis along with trade press and news alerts) allows you to obtain a high-level supply picture of what is going on in your state and region. States can then reach out to other state EEACs to gather and share information regionally, and to petroleum industry prime suppliers and jobber-distributors through the State Heating Oil and Propane Price (SHOPP) program.

Following are some of the key sources of data and analysis information available at the state and regional levels:

1. EIA produces analysis and short-term forecasts that can also be useful in tracking changing market trends. Two important reports for monitoring petroleum supplies are EIA's [Short-Term Energy Outlook](#)²⁷, which forecasts energy supply, demand, and prices, and the [Weekly Petroleum Status Report](#)²⁸, which has information on U.S. petroleum balances, inputs, and production and stocks by Petroleum Administration for Defense District (PADD).
2. Monthly petroleum sales at the state level are provided by EIA in the prime supplier monthly reports. These reports are a proxy for monthly consumption of fuel delivered into states for final consumption²⁹. The prime supplier sales volumes are also available in a state level time series format³⁰. The data is also available in monthly and annual formats. You can select any specific fuel or multiple fuels and click on the graph button, and a graph of those time series will be produced that can be downloaded in several different formats. This data can be very useful for policymakers. (*Note that monthly sales data are reported with a 2- to 3-month time lag.*)

In addition, it is recommended that states request from their prime suppliers' copies of the EIA-782C reports that are used to generate these data series so that the state understands both the companies that supply the state and the relative market share. The individual company reports include business sensitive information that must be held confidential by appropriate provisions under your state's freedom of information act. If you are unable to legally protect the information from disclosures it is likely that some companies will be unwilling to share it on a voluntary basis.

²⁶ State energy emergency assurance coordinators are encouraged to register for an EAGLE-I account, which provides situational awareness about the nation's energy infrastructure. Federal partners and state energy emergency assurance coordinators can register for an account at <https://eagle-i.doe.gov/>

²⁷ U.S. Energy Information Administration. Short-Term Energy Outlook. <https://www.eia.gov/outlooks/steo/>

²⁸ U.S. Energy Information Administration. Weekly Petroleum Status Report. <https://www.eia.gov/petroleum/supply/weekly/>

²⁹ U.S. Energy Information Administration. Prime Supplier Report. <https://www.eia.gov/petroleum/marketing/prime/>

³⁰ U.S. Energy Information Administration. Prime Supplier Sales Volumes. https://www.eia.gov/dnav/pet/pet_cons_prim_dc_u_nus_m.htm

In the future if one or more companies experiences a significant supply problem you will be able to better quantify the total impact on your state's market. In addition, this information will be required in order to implement a state set-aside program. For more information on how to acquire a list of the suppliers, see the state set-aside program section (Page 48). If you are unable to collect a response from all suppliers, you can still use some of the data from the reports that you receive and divide the sum of those reports by the monthly state total reported by EIA to determine the percent of the market that is covered by the reports you have received.

3. State and regional refinery production and capacity utilizations are important to track. The [Table 29](#) of the Petroleum Supply Monthly³¹ shows refinery and blender net production of finished petroleum products by PADD and refining districts. Depending on your state's supply chain, refining districts may provide a better level of detail, as these are further breakdowns of the PADD and are sometimes referred to as sub-PADD regions. There is a two-month time lag in the data but it does provide a good historical record that can help states better understand the contribution of refinery production in meeting state and regional demand. Because of the just-in-time nature of the petroleum supply chain, inventories at the state level will often be relatively small compared to daily demand. Most terminals keep on hand supply sufficient to cover demand for the number of days it takes for resupply to reach the terminal plus a buffer to account for limited delays. The daily production and imports of refined petroleum products that move by pipeline, marine, rail, and trucks are the largest component of daily supply compared to inventory withdrawals. For this same reason unanticipated disruption to petroleum refining and product pipelines can quickly impact supplies to customers, depending on the criticality of the pipeline and the refineries serving your state's supply chain. This emphasizes the importance of understanding critical petroleum infrastructure both within and outside of your state that is critical to fuel supply.

Refinery, bulk terminal, and natural gas plant stocks by state³² are also important, but not to the same extent that productions and shipments by pipeline, rail, and marine vessels might be. Petroleum product stock data is shown for the U.S. and, similar to the prime supplier sales volume, you can select your state's data from the pull-down menu and graph it. Using the time series data, you can identify the five-year highs and lows by month and use that to draw bandwidths much like the EIA Weekly Petroleum Status Report issued each Wednesday to monitor stocks relative to historic highs and lows for a month. You can also look at stocks relative to the monthly sales volume by converting barrels into gallons by multiplying by 42. *(Note: State level stocks are reported with a 2- to 3-month lag and, as a result, this data may not be helpful for tracking the immediate impact of disruption events such as hurricanes or pipeline outages. During those types of disruptions, a state will likely have to begin responding to shortages well before data is available for analysis.)*

Another monitoring mechanism that is in place is provided under the Reliable Home Heating Act ([Public Law 113-125](#))³³ enacted on June 30, 2014, see 49 CFR § 390.23. *“The Administrator of the Energy Information Administration, using data compiled from the Administration's Weekly Petroleum Status Reports, shall notify the Governor of each State in a Petroleum Administration for Defense District if the inventory of residential heating fuel within such district has been below the most recent 5-year*

³¹ U.S. Energy Information Administration. Petroleum Supply Monthly Table 29: Refinery and Blender Net Production. https://www.eia.gov/dnav/pet/pet_pnp_refp_dc_nus_mbb1_m.htm

³² U.S. Energy Information Administration. Refinery, Bulk Terminal, and Natural Gas Plant Stocks by State. https://www.eia.gov/dnav/pet/pet_stoc_st_dc_nus_mbb1_m.htm

³³ Reliable Home Heating Act (Public Law 113-125). <https://www.gpo.gov/fdsys/pkg/PLAW-113publ125/pdf/PLAW-113publ125.pdf>

average for more than 3 consecutive weeks.” Residential heating fuels include heating oil, natural gas, and propane. You should be aware of these conditions even before the governor’s office is notified. The data for this determination for the Petroleum Administration for Defense District that your state is part of is available on the EIA website in the [Weekly Petroleum Status Report](#)³⁴.

4. The State Heating Oil and Propane Program is a price monitoring program that collects weekly information at the state level from October through March on the average residential retail price of home heating oil and propane. It is a cooperative data collection effort between EIA and State Energy Offices. The data is used by policymakers, industry analysts, and consumers. Currently 38 states participate in this program. This data can be found on the EIA [website](#)³⁵. In addition to the data collected, states are in weekly contact with heating oil and propane dealers and distributors. Should supply problems develop they have an opportunity to check with these dealers to assess the status of the capability to meet demand and identify any supply problems that may be apparent.
5. A number of states have in place the mechanisms for monitoring petroleum markets. States also engage in periodic regional conference calls held in conjunction with energy industry representatives. States in the Midwest and Northeast typically conduct such calls during the winter months to monitor heating fuels.

In the West, the California Energy Commission hosts monthly calls that a number of states and industry representative participate in to review all energy markets. When events occur such as the anticipated landfall of a significant hurricane, DOE and NASEO usually schedule regional supply and state preparedness calls.

6. Following are three examples of state energy market monitoring and analysis:
 - a. Michigan Agency for Energy produces a [Michigan Energy Appraisal](#)³⁶ twice a year in the spring and fall that includes state and regional petroleum supply and demand forecasts. This allows them to use these forecasts as a baseline for comparison when events may affect supply, demand, or prices. These are also tied to EIA’s Short-Term Energy Outlook Reports issued monthly.
 - b. The New York State Energy Research and Development Authority produces two weekly reports on transportation and heating fuels:
 - i. [Weekly Heating Fuels Report](#)³⁷
 - ii. [Weekly Transportation Fuels Report](#)³⁸
 - c. The California Energy Commission has a [webpage](#)³⁹ on petroleum data, facts, and statistics and features a number of reports including:
 - i. Fuels Watch Report - Weekly Refinery Reports⁴⁰

³⁴ U.S. Energy Information Administration. Weekly Petroleum Status Report. <https://www.eia.gov/petroleum/supply/weekly/>

³⁵ U.S. Energy Information Administration. Heating Oil and Propane Update. <https://www.eia.gov/petroleum/heatingoilpropane/>

³⁶ Michigan Agency for Energy. Michigan Energy Appraisal. http://www.michigan.gov/documents/energy/ea-summer17_573223_7.pdf

³⁷ New York State Energy Research and Development Authority. Weekly Heating Fuels Report.

<https://www.nyserda.ny.gov/About/Publications/EA-Reports-and-Studies/Weekly-Heating-Fuels-Report>

³⁸ New York State Energy Research and Development Authority. Weekly Transportation Fuels Report.

<https://www.nyserda.ny.gov/About/Publications/EA-Reports-and-Studies/Weekly-Transportation-Fuels-Report>

³⁹ California Energy Commission. Petroleum Data, Facts, and Statistics. http://www.energy.ca.gov/almanac/petroleum_data/

⁴⁰ The report requires refining and supply companies to report weekly data to the Commission to provide situational awareness on refinery production and state stock levels in the state. This information is more granular than EIA data and timelier for monitoring purposes. However, the program (and a similar one in Hawaii) were the outcome of state legislative processes which require the petroleum companies to provide the data.

- ii. Crude Oil Imports by Railcar
- iii. Oil Supply Sources to California
- iv. Foreign Crude Oil Supply Sources to California Refineries
- v. California's Oil Refineries

Estimating the severity of a shortage and quantifying a statewide shortage in terms of an accurate percentage of shortfalls can be challenging. However, it can be estimated by reference to various indicators such as state petroleum demand levels, refinery production, state and regional inventories, and wholesale and retail prices, all relative to past supply conditions. Further, due to the variety of supply arrangements, distribution systems, and local consumption patterns, some communities may experience a more serious shortfall than others. Some state plans define response tied to a percentage reduction in supply. It is not always useful to tie the specific action in an energy emergency plan to specific shortage levels as consequences of events may be better indicators (e.g., price spikes, service station outages, tanker truck lines at petroleum terminals, etc.).

For a more detailed list of key sources of data that can be used for petroleum market monitoring see [Appendix B: Data and Methods for Monitoring Petroleum Supply, Demand, and Prices](#).

H. STATE PETROLEUM RISK ASSESSMENTS (VULNERABILITIES, CONSEQUENCES, THREATS)

In order to understand risk assessments, see the [National Infrastructure Protection Plan](#)⁴¹ (NIPP). NIPP 2013 is augmented by a series of supplements (pictured on the next page)^{42 43 44 45} which serve as tools and resources for the critical infrastructure community as they implement specific aspects of the NIPP.

⁴¹ U.S. Department of Homeland Security. National Infrastructure Protection Plan 2013: Partnering for Critical Infrastructure Security and Resilience. <https://www.dhs.gov/national-infrastructure-protection-plan>

⁴² U.S. Department of Homeland Security. NIPP Supplemental Tool: Connecting to the National Infrastructure Coordinating Center (NICC) and National Cybersecurity and Communications Integration Center (NCCIC). <https://www.dhs.gov/publication/connecting-nicc-and-nccic>

⁴³ U.S. Department of Homeland Security. Supplemental Tool: Executing a Critical Infrastructure Risk Management Approach. <https://www.dhs.gov/publication/nipp-2013-ci-risk-management-approach>

⁴⁴ U.S. Department of Homeland Security. Supplemental Tool: Incorporating Resilience into Critical Infrastructure Projects. <https://www.dhs.gov/publication/nipp-2013-resilience-ci-projects>

⁴⁵ U.S. Department of Homeland Security. Supplemental Tool: National Protection and Programs Directorate Resources to Support Vulnerability Assessments. <https://www.dhs.gov/publication/nipp-2013-resources-vulnerability-assessments>



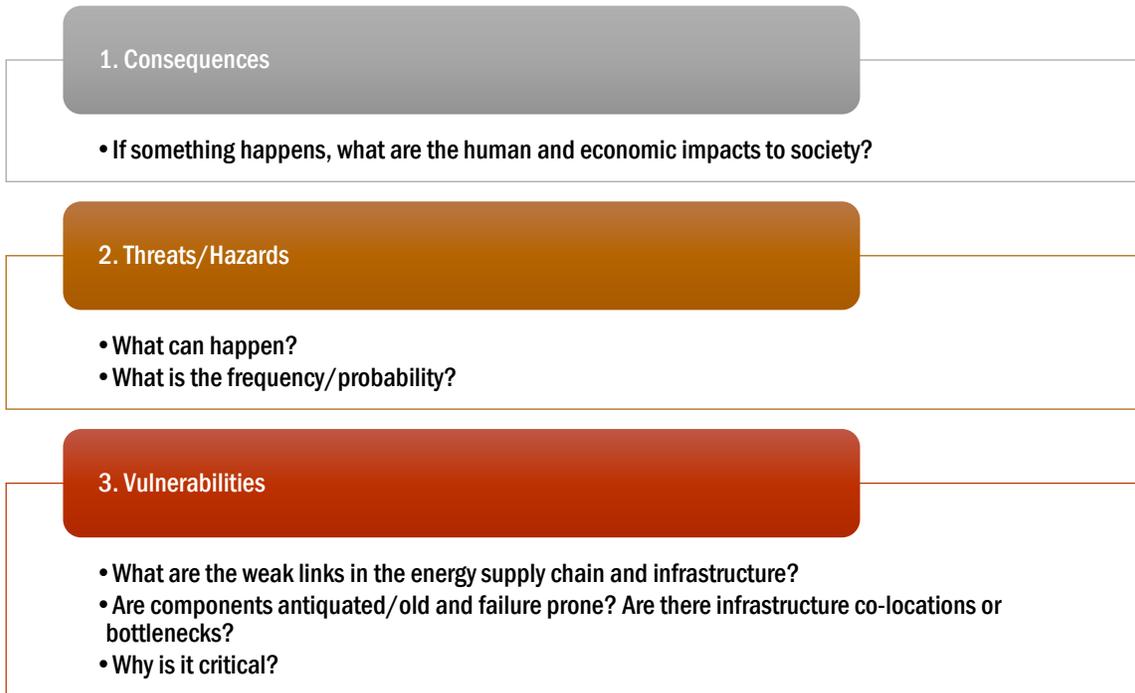
Under the NIPP 2013 is the [Energy Sector Specific Plan](#)⁴⁶ that sets forth a number of goals including:

1. Assess and analyze threats to, vulnerabilities of, and consequences to critical infrastructure to inform risk management activities.
2. Secure critical infrastructure against human, physical, and cyber threats through sustainable efforts to reduce risk, while accounting for the costs and benefits of security investments.
3. Enhance critical infrastructure resilience by minimizing the adverse consequences of incidents through advance planning and mitigation efforts, as well as effective responses to save lives and ensure the rapid recovery of essential services.

Figure 6 illustrates how state energy assurance plans encompass efforts to reduce the risk to critical energy infrastructure by assessing three factors:

⁴⁶ U.S. Department of Homeland Security. Energy Sector – Specific Plan – 2015. <https://www.dhs.gov/publication/nipp-ssp-energy-2015>

FIGURE 6. THREE FACTORS STATES USE TO ASSESS CRITICAL ENERGY INFRASTRUCTURE



As a starting point states may include the state and regional energy sector risk profiles that are available on DOE's State and Regional Energy Risk Assessment Initiative [webpage](#)⁴⁷.

Using this approach coupled with an understanding of state petroleum infrastructure and supply chains profiles of critical energy infrastructures can be developed to understand risk from damage or destruction of key facilities. In the event of disruptions at these facilities, you will already have identified the potential consequences and have some idea of the time it will take to bring them back into service. Based on this information one can make decisions of response activities scaled to the level of anticipated impacts. It also allows for more effective communication with the affected petroleum companies.

In a number of states, the agency responsible for homeland security may have conducted risk assessments of critical energy infrastructures. This may serve as a good starting point to address any potential gaps in energy infrastructure for which risk assessments have not yet been completed or to examine and address the risk from different types of hazards and threats such as cyberattacks. In several states and in some regions, the U.S. Department of Homeland Security working with their state level protective security advisors may have examined energy infrastructure as part of the [Regional Resiliency Assessment Program \(RRAP\)](#)⁴⁸.

There are a number of very useful studies, methods and data that can assist states with risk assessments. These can be found in [Appendix C: Risk Assessments \(Vulnerabilities, Consequences, and Threats\)](#).

⁴⁷ U.S. Department of Energy. State and Energy Risk Assessment Initiative. <https://energy.gov/oe/activities/energy-assurance/state-and-regional-energy-risk-assessment-initiative>

⁴⁸ U.S. Department of Homeland Security. Regional Resiliency Assessment Program. <https://www.dhs.gov/regional-resiliency-assessment-program>

IV. GUIDANCE ON DETAILS FOR PETROLEUM RESPONSE PROGRAMS AND MEASURES

This section is comprised of four sets of response programs and measures. The first and third, which are described as programs, contain specific details on actions that may be taken and the circumstances under which they should be deployed. The second set addresses state measures that are often used during energy emergencies but that do not have the same level of detail as the programs. If these measures are to be included in a state energy assurance plan, it is strongly suggested that they be developed with the same level of detail as the program descriptions. Some of the programs and measures may not be applicable to some states and regions. Listed below is the framework for this section with hyperlinks which will take you directly to individual subsections:

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States should recognize that these actions must fall within their legal authority while being adapted to meet the particular needs of a state. States should consult appropriate legal authorities in advance to determine whether their legal authority to establish these programs is provided under the emergency powers of the state or requires a separate legal authorization or has otherwise been established through state statutory or regulatory means.

States are free to use any or all of the following information, including document templates, in their plans. These detailed state and federal contingency programs are structured based on the Energy Assurance Planning Framework⁴⁹ and can be adapted to state plans and formatted according to the structure of a state’s energy assurance plan.

A. SUPPLY MANAGEMENT

I. STATE DETAILED PROGRAMS

a) PETROLEUM PRIORITIES FOR ESSENTIAL SERVICES PROGRAMS

Summary

Should petroleum suppliers experience a major supply disruption, regardless of the cause, if needed they would discontinue sales to noncontract customers to prioritize available supply to meet contractual obligations. In addition, if the available supply is still less than contractual obligations, they would need to allocate fuel proportionately typically based on percent of contract volumes. Should the reduction be severe, essential public service providers (regardless of whether or not they are contracted customers) may not have sufficient fuel to ensure public safety. Furthermore, any government unit that may not have contracts in place could see their supplies cut off along with other noncontract customers. This program is designed to assure essential public service needs are met and provided with the supply they require.

⁴⁹ National Association of State Energy Officials. State Energy Planning Framework Level 3 Outline. <http://www.naseo.org/level-3>

An essential services priority program (priority end-user program) would require primary petroleum suppliers to provide sufficient liquid fuels to meet the needs of critical end-users such as first responders: law enforcement, fire, and emergency medical services, and any other essential service providers determined by the state or other legal authorities.

Supply volumes would be based on an average of contract volumes or historical purchases. In addition, critical users may need additional supplies by the nature and scope of the shortage. For example, diesel fuel for backup generators to support water systems and hospitals may be included in a priority list if the petroleum shortage is coupled with a power outage. Such action could be accomplished quickly and if the problem were more protracted and of a larger scale, a petroleum state set-aside program could be considered for implementation.⁵⁰

For more information on petroleum, refer to pages 61-68 of the [State Energy Assurance Guidelines](#)⁵¹.

Description

Assuring petroleum supplies for essential public services⁵² during fuel shortages through a priority end-user program would require petroleum suppliers to provide critical (or priority) end-users with 100 percent of their current fuel requirements upon certification to their supplier(s) of the quantity needed to maintain operations at the prevailing price. If contractual obligation were suspended due to a force majeure situation, alternative suppliers would need to be identified. Liquid fuel supplies are defined as any petroleum-based fuel and bio-fuels including ethanol and bio-diesel such as:

- Gasoline and diesel fuel as well as other petroleum products, including propane (LPG), jet fuel, and biofuels.
- For the purpose of this measure, the critical end-user would certify this allocation average to their supplier(s). Certification may necessitate supplier and state coordination to resolve any disputes.

Intent of the Program

The priority end-user program is designed to guarantee the availability of necessary supplies of petroleum-based fuels for priority end-users essential to ensure the health, safety, and welfare of the general public. Priority users would include those noted above plus any other essential service providers determined by the state or other legal authorities. If this program is implemented before a state set-aside program, those eligible for priority supplies for current requirements would not need to be eligible for the state set-aside program. *(Note: Limiting the categories of eligible groups may improve support for this program because it sets priorities by reallocating sales of limited fuel supplies from one group of customers to another. Critical services are categories for which there is likely to be less public concern.)*

Conditions Under Which the Program May Be Used

The priority end-user program could be used after the governor declared an energy emergency, or after a natural disaster or man-made emergency has been declared under other authorizing authority as determined by state law. The decision to implement the program could depend upon whether priority

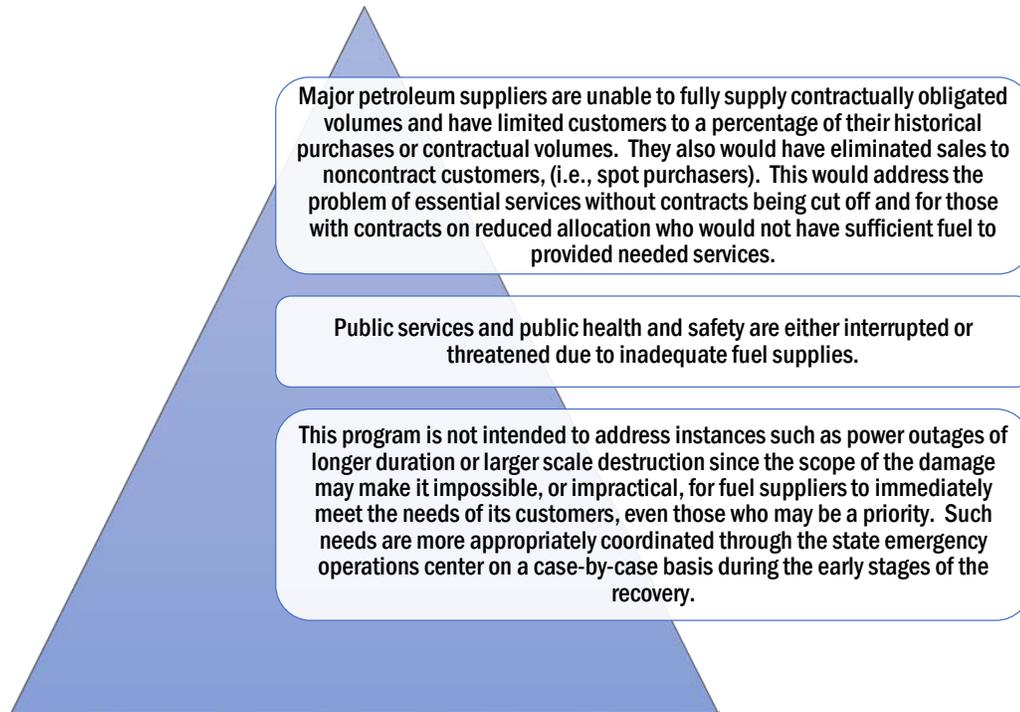
⁵⁰ National Association of State Energy Officials. State Energy Assurance Guidelines, Version 3.1. Appendix F: Petroleum Fuel Set-Aside. December 2009.

http://www.naseo.org/Data/Sites/1/documents/energyassurance/eaguidelines/State_Energy_Assurance_Guidelines_Version_3.1.pdf

⁵¹ Ibid.

⁵² Essential services typically are defined as police, fire protection, and emergency medical services, but can also include utility crews, water/wastewater and sanitation services, etc.

end-users are receiving sufficient amounts of petroleum products to maintain essential public services. This would only be used in more serious longer-term shortages. It is suggested that the program would be implemented when three conditions are widely prevalent:



Legal Authority

Legal authority would be based on a public act that authorizes a governor to initiate this action. This authority exists within most states' emergency authorities during a declared state of emergency or disaster in order to provide services essential to the health, safety, and welfare of the residents of the state.

- The suggested approach is that the governor issues an executive order to establish a priority end-user plan.
- States should also authorize a designated agency to provide for resolution of disputes arising from this order (see the rules for appeals below).

Other Legal Issues or Constraints

By requiring that suppliers meet the needs of priority end-users, priority users could request volumes in excess of contractual arrangements, which could be challenged in the courts.

- Established state rules typically have a specific protocol that requires multiple reviews by different agencies and legislative bodies, so this may take some time to implement. Adoption of emergency rules may be quicker. If there is too great a delay, rolling more specifics into the executive order may be required.

Two additional options to consider in drafting and issuing such an order:

1. Include all necessary details to effectuate the actions contemplated as part of the executive order.
2. Provide additional clarification through the use of state administrative rules.
 - a. Such rules would need to be adopted on an emergency basis.
 - b. If there is no foundation by which to do so within state law, it may be better to address these matters in the governor's emergency executive order.
 - c. While administrative rules are used widely by states, they may be ineffective in an emergency situation due to long lead times for approval.
 - d. In those states where they can be effectively employed, administrative rules may be considered as elements of the plans.

Role of Private and Public Sectors

Petroleum suppliers would need to be notified directly of the implementation of this measure so that they understand:

- What supply obligation they may have to support contractual customers and spot purchases that are priority end-user customers?
- How to handle requests for additional fuels from defined critical end users.
- How disputes will be resolved and the appropriate agency or department to contact for questions and disputes as described in Section 3 below.

State or regional American Petroleum Institute offices, Petroleum Marketers Association of America and their state members, state petroleum councils, state propane associations, and other retail gas station associations may be able to assist with this notification. (*Note: This measure could include provisions for petroleum suppliers to check the request submitted against their records to validate and bring any disputes/disagreements to the state for resolution.*)

Relationship to State's Emergency Management Plan

This action would most likely require legal authority that is typically found under a disaster or energy emergency declaration. It is prudent to plan coordination through a states' emergency management system, and to include this action within the responsibility of Emergency Support Function - 12 (Energy). Such responses are usually coordinated through the state emergency operations center and fall under the incident command structure as implemented by the state. This relationship should be described in the action.

Impact on Other Jurisdictions, Regional Entities, and the Federal Government

It is also prudent to consider the possible actions of neighboring jurisdictions, regional entities and the federal government. States are strongly encouraged to coordinate with neighboring states, including those within the region of the petroleum supply and distribution infrastructure that has been impacted by the disruption. States should also coordinate with private petroleum supply and distribution groups and associations. The state's energy emergency assurance coordinator is responsible for informing other states in the affected region in advance of the implementation of this measure. Often events of this nature affect multiple states, and it is more effective and efficient if states implement consistent or, at the very least, complementary actions to assure fuel supplies for essential public services. It is also

important that these actions are not seen to impact interstate commerce and should only govern supply that has been delivered into a state for final consumption.

Role of Local Governments

Local governments should be notified directly of the implementation of this measure so that local critical end-users can submit a timely request to their supplier(s). The state should identify the means for outreach to local governments and municipalities, county and other local entities and local emergency managers. Most often, states may use their emergency management agencies to coordinate contacting county-level and municipal-level emergency management offices.

Budget, Staffing, and Other Resource Requirements

Costs would cover all organizational and operational logistics in issuing and implementing the executive order including staffing costs. For example:

Start-up costs:	\$
Operation costs including staffing:	\$
TOTAL	\$

Estimated Computer Requirements and Security

This group of costs is not anticipated for states since the transaction would be between priority end-users and their suppliers.

- A state may wish to post a PDF file that can be directly filled in by applicants on a state agency website. Some states may have the authority to use electronic signature under the Uniform Electronic Transaction Act of 1999⁵³ which can facilitate the submission of requests to suppliers via email or a website.
- It may be prudent to specifically ask that the state and applicants keep a paper copy in the event of a disaster that renders one or both unable to provide a PDF copy or assure redundant system backups are in place to protect the records in geographically separate locations.

Implementation Procedures

1. The governor issues an executive order establishing a priority end-user program.
2. The governor notifies the representatives of all major petroleum companies operating in the state.
3. Each company is asked to designate a company representative to develop procedures for processing certification applications.
4. An information package containing the executive order, a certification application, and all regulations pertaining to the program would be sent to all petroleum suppliers operating in the state as well as to local governments.
5. The designated agency within the state would prepare a press release for the governor, notifying the public that a priority end-user program will become operational.

⁵³ Uniform Electronic Transaction Act of 1999, Section 2(8).

6. A unit would be established within the designated agency to handle inquiries, complaints, and resolve any disputes that might arise between those customers designated as priority end-users and the petroleum companies that supply them.

Implementation Lead Time

Public acceptance of this measure will be enhanced if the state can provide an estimate of how long it will take to put the measure in place and secure the required supply. Lead time would include time to notify suppliers and priority end-users plus the time required for those users to submit requirements to their supplier. It is expected that suppliers should begin to address any additional fuel requirements no more than one week after certifications are submitted. It is important that information be accurate as to the estimate of initial startup of the system without raising public expectations.

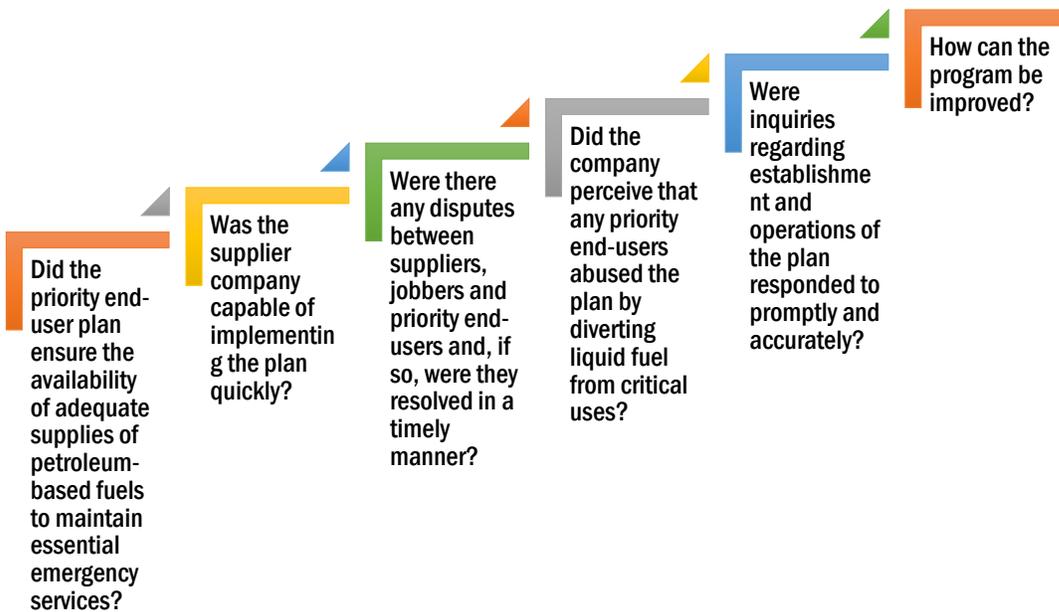
Operations and Administration

1. The state, in coordination with appropriate petroleum industry representatives, should determine points of contact within the petroleum industry to facilitate the implementation of a priority end-user program and to resolve any disputes.
2. Priority end-users would then certify their current requirements to the designated supplier system. The supplier may be a refiner, a national or regional supplier and may be represented by local wholesaler companies (jobbers) that can recertify to the designated supplier on behalf of the claimant.
3. This certification can be in any format preferred by the state (see sample below). The use of email, websites, and social media can contribute to more rapid implementation. The certification should include:
 - a. The name, business address, phone number, and point of contact for the individual representative of the priority end-user.
 - b. The essential uses for which the petroleum fuels would be consumed by the defined critical agencies.
 - c. The name, address, phone number, and point of contact of the end-user's supplier(s).
 - d. The on-site storage capacity if available.
 - e. The last 12 months of purchases from the supplier to whom the certification application is being made. (This is the average volume used to certify the amount.)
 - f. The anticipated monthly requirements for the next 12 months.
 - g. If volumes are requested in excess of the prior year's total or average purchases, a written justification indicating the reason for the additional fuel must be included.
 - h. A sworn statement by the responsible party testifying to the truth and accuracy of the information provided.
4. Suppliers are urged to provide the additional supply as soon as possible with a maximum of no more than ten (10) days, upon submission of the certification.
5. Certification by priority end-users to jobbers and distributors should be forwarded to their supplier(s) who, in turn, provide the additional supplies of petroleum-based fuels to that distributor in order to meet the needs of their priority accounts.

6. Any dispute should be directed to the designated agency within the state for resolution. This can include both appeals from a priority user or a supplier challenging a certification, or from a non-priority customer.

Evaluation

Following discontinuance of a program, participating oil companies should be requested to submit a report to a designated state agency. This report should detail the company's operations under the program. Program improvement may be achieved by asking for oil companies' views on the following:



Impact Assessment

It will assist in the future use of this measure if a formal impact assessment is undertaken based on state and local government experiences and observations in addition to an evaluation provided by the participating petroleum product suppliers. Major impacts are not limited to, but may include:

Interdependency Effects	<ul style="list-style-type: none"> • Did the change in supply of one type of energy affect the supply of other forms of energy? To what degree did servicing priority customers reduce the supply to non-priority customers?
Social Impacts	<ul style="list-style-type: none"> • What measured impacts were observed on the ability of priority users to sustain operations?
Economic/Financial Impacts	<ul style="list-style-type: none"> • What were the estimated impacts on the state's economy, if any? This analysis could include effects on employment, productivity, tourism, and revenues.
Information Management	<ul style="list-style-type: none"> • How effective was the information supplied to critical end-users and their customers?
Programmatic Threats	<ul style="list-style-type: none"> • Were any programmatic problems observed such as non-compliance, attempts to "game" the system, theft, or other acts deemed illegal, unethical or inappropriate?

Risk Management

This section should identify potential impediments to the program or other reasons that might affect the operational effectiveness of this measure. These may include, for example:

- Historical performance and deviation of response measure (i.e., lessons from the past).
- Critical elements for the successful performance of the response measure.
- Medium-to-long-term impacts to reduce unintended consequences.

DRAFT EXECUTIVE ORDER FOR IMPLEMENTATION OF PRIORITIES FOR ESSENTIAL SERVICES

**Executive Order [insert number and year]
State of [Energy] Emergency [or Disaster]
Implementation of Priorities for Essential Services**

WHEREAS, [insert citation to legal authorities that establish the governor’s ability to take the actions contained in the order];

WHEREAS, [insert brief description of the event(s) that have required this action]; and

WHEREAS, [insert brief description of the consequences and impacts of the event(s)]; and

WHEREAS, it is in the best interests of the State of [insert name] to provide priority to emergency responders for petroleum product supplies needed to protect the health, safety, and economic well-being of the state’s residents and visitors; and

NOW, THEREFORE, I, [insert governor’s name] Governor of the State of [insert name], by virtue of the power and authority vested in the Governor by [cite statute] upon declaration of a state of emergency in the Executive Proclamation [insert number] under this act, I, [insert governor’s name], Governor, hereby implement a Priority End-User Program, [statewide, in the state of, or to become effective in the counties of] as set forth below on [insert time, month, day, year].

Priority End Users

Petroleum suppliers shall supply 100 percent of the current fuel requirements to emergency responders (law enforcement, firefighting units, and emergency medical services) upon certification. This certification, to be submitted from a priority end-user to their supplier, shall contain:

1. Statement of the most recent 12 months of purchases in gallons.
2. Anticipated requirements for each of the next 12 months.
3. Written justification explaining the need for any volumes in excess of historical or contractual purchases.
4. A sworn statement by the responsible party that the information contained in the certification is true and accurate and that the petroleum product to be provided will only be used for priority use as indicated by the emergency responders.

Suppliers will have ten (10) work days to begin supplying a priority account with the current requirements upon submission of the certificate of need.

I hereby designate the [insert state agency name], as the state office responsible for the administration of this program. As such, the [insert state agency name] shall provide for a mechanism that will allow for the resolution of any dispute arising out of the imposition of the Priority End-User Program.

Violation of Order

Any person who knowingly violates this directive is guilty of a [insert any penalties that may be provided by state law. For example, this might be “a misdemeanor punishable by a fine of not more than [insert number of dollars].] Each day a violation continues is a separate offense. The Attorney General or a Prosecuting Attorney of a county may bring an action in a court of competent jurisdiction to prevent a violation of this order or to compel a person to perform a duty imposed on the person under this Executive Order.

Duration of Order

This order shall remain in effect for [insert number of] days from its effective date unless amended, superseded, or rescinded by further Executive Order [or Proclamation]. It shall expire in [insert number of] days after the proclamation of a state of emergency unless extended as provided for in [insert reference to the statute under which this action is based. Alternatively, it could say until such time as supply conditions improve and the plan is no longer needed and the governor issues an order rescinding the plan.].

Governor: _____

Dated: _____ [insert location]

File with [insert name of the state officer, department, or legislative body with which the order may need to be filed]

DRAFT PRIORITY END-USE CERTIFICATE FORM

DEPARTMENT OF [Insert Name] [Insert Agency Name] [Insert Agency address] CERTIFICATE OF PRIORITY END-USE Please Print or Type – Application Must Be Legible and Signed. Return To Above Address.										
PART I: IDENTIFICATION										
1. Date of Request			1. EIN Number			PART II: SUPPLIER/SUPPLY DATA				
Mo Day Yr						8. Supply Volumes for Requested Product				
						(In Gallons)				
2. Name of Company/Applicant Submitting Request (Last name first if individual)					Month		Current		Actual Purchases for the Last Twelve Months	
							Year	Purchases	Year	Volume
3. Mailing Address of Company/Applicant (Street, City, State, Zip Code, County)					(1) Jan					
					(2) Feb					
					(3) Mar					
4. Name and Phone (Including area code) of Contact Person					(4) Apr					
					(5) May					
5. Name of Delivery Location (If different from 3)					(6) Jun					
					(7) Jul					
					(8) Aug					
6. Address of Delivery Location (If different from 4) (Street, City, State, Zip Code, County)					(9) Sep					
					(10) Oct					
					(11) Nov					
					(12) Dec					
					(13) Total					
9. Applicant's Classification (a) <input type="checkbox"/> Police Agency (b) <input type="checkbox"/> Fire Fighting Units (c) <input type="checkbox"/> Emergency Medical Services (d) <input type="checkbox"/> Other Explain: _____										
PART III: SUPPLIER/SUPPLY DATA					Storage Capacity:					
10. Supplier Information (Enter the information requested below for each current supplier for motor gasoline. List on the first line the principal immediate supplier. If more than three, use an additional sheet.)										
Name and Mailing (Street) Address (a)		City, State and Zip Code (b)		Supplier's name (c)	% of Volume (d)	Name and Phone Number (Including area code) of Contact Person (e)				
11. Justification of Volumes Requested <i>(Describe in detail the reasons justifying the requested volumes as normal and reasonable for intended use, and provide reasons why the product is needed. Use additional sheets as needed.)</i>										
PART IV. CERTIFICATION (To Be Completed By All Applicants)										
I hereby certify that all information submitted as part of this application is true, accurate and complete to the best of my knowledge, that any quantity requested for priority use will be used only for that requested use, and that an amended application for a downward base period adjustment will be filed if the need for the volume assigned pursuant to this application declines.										
Name of Applicant or Company Official		Title of Applicant or Company Official		Signature		Date Signed (Month Day Year)				

DRAFT EMERGENCY RULES PROCEDURE AND APPEALS PROCESS

These rules take effect upon filing with the [insert name of the appropriate state agency should your state have a requirement for the filing of administrative rules].

By authority conferred on [insert state agency name], by the Governor upon the proclamation of an emergency and by Executive Order [insert number] on [insert month, day, year] under [insert full legal citation to the act and section of the act upon which this authority is based].

FINDING OF EMERGENCY

By executive order the Governor has declared that a state of [energy] emergency exists. Under powers granted to the Governor during a declared state of energy emergency, Executive Order [insert number and year] was issued establishing a Priority End-User Program. In this order, the Governor designated [insert state agency name], as the agency responsible for the administration of this program. Further, it required a mechanism to resolve any disputes arising out of the use of this plan. The following rules are intended to outline an appeals procedure to provide this mechanism.

Delay in establishing rules of procedure to effectively carry out the duties delegated to the [insert state agency name] regarding the administration of the Priority End-User Program might well constitute a threat to the citizens of the state due to the lack of petroleum products. To avoid this threat and to assure that essential public needs are met [insert state agency name] finds the following rules are needed for the preservation of public health, safety, and welfare and that an emergency exists within the meaning of [insert the legal reference to the state law and executive order under which it is to be implemented].

Rule 1. Definitions

- 1) As used in these rules:
 - a) “Current requirements” means the supply of motor gasoline, distillate fuel oil and propane needed by an end-user or wholesale purchaser to meet its present priority end-use needs.
 - b) “Department” means the [insert state department name].
 - c) “Designated Supplier” (See Supplier below).
 - d) “Director” means the director of the [insert state agency name], or the designee thereof.
 - e) “Distillate Fuel Oil” means a general classification for one of the petroleum fractions produced in conventional distillation operations. It includes diesel fuels and fuel oils. Products known as Number 1, Number 2, and Number 4 diesel fuel are used in on-highway diesel engines, such as those in trucks and automobiles, as well as off-highway engines, such as those in railroad locomotives and agricultural machinery. Products known as Number 1, Number 2, and Number 4 fuel oils are used primarily for space heating and electric power generation.
 - f) “End-User” means any person who is an ultimate consumer of a petroleum product other than a wholesale purchaser-consumer.
 - g) “Motor Gasoline” means a complex mixture of relatively volatile hydrocarbons with or without small quantities of additives, blended to form a fuel suitable for use in spark-ignition engines. Motor gasoline, as defined in ASTM Specification D 4814 or Federal Specification VV-G1690C, is characterized as having a boiling range of 122 to 158 degrees Fahrenheit at the 10-percent recovery point to 365 to 374 degrees Fahrenheit at the 90-percent recovery point. “Motor gasoline” includes conventional gasoline; all types of oxygenated gasoline, including gasohol; and reformulated gasoline; but excludes aviation gasoline.
 - h) “Person” means an individual, corporation, firm, government unit, organization, or any other establishment whatsoever.
 - i) “Propane, Consumer Grade” means a normally gaseous paraffinic compound (C₃H₈) that includes all products covered by Natural Gas Policy Act specifications for commercial use and HD-5 propane and ASTM Specification D 1835. It is a colorless paraffinic gas that boils at a temperature of -43.67 degrees Fahrenheit. It does not include the propane portion of any natural gas liquid mixes, e.g., butane-propane mix.
 - j) “Supplier” means a firm, or a part or subsidiary of a firm (not including the U.S. Department of Defense) that presently or during the last 12 months supplies, sells, transfers, or otherwise furnishes, such as by consignment, motor gasoline, distillate oil and propane to wholesale purchasers or end-users, including but not limited to refiners, importers, resellers, jobbers, or retailers.

Rule 2. Appeals: Petition; Stay Order; Response; Decision

- 1) A person aggrieved by a certification of priority end-use may file a written petition of appeal to the [insert state name]. The petition shall include:
 - b) Name and address of the petitioner.
 - c) A concise statement of facts surrounding the case, including the reason for the appeal and relief sought.
 - d) Names and addresses of persons known to petitioner who may be affected adversely by the outcome of the appeal. The petitioner shall attach a sworn statement to the petition that states that the information provided in the petition is true to the best of the petitioner’s knowledge.
- 2) [Insert state agency name] shall, within three work days after the filing of a petition, serve a copy of the petition on known persons who might be affected adversely by the outcome of the appeal. Persons served with a petition may, not later than five work days from service of the petition, file a written reply, supported by a sworn statement to the effect that the information in the reply is true to the best of the respondent’s knowledge. A copy of the response shall be made available to the petitioner.
- 3) Within 20 work days after the petition of appeal is filed, the [insert state agency name] shall render a decision on the appeal and serve it upon all persons who participated in the appellate proceeding and any other person who is aggrieved by the decision and order. A person is deemed to have exhausted their administrative remedies once a decision has been rendered on the appeal.

b) MINIMUM PURCHASE AND ODD-EVEN PURCHASE PROGRAMS

Summary

These two plans are designed to respond to long lines at retail gas stations due to fuel shortages. These approaches were used during the shortages that resulted from the Arab oil embargo in 1973 and again in 1979 when the revolution in Iran created serious fuel shortages in the United States. They were not used again until Superstorm Sandy in 2012 caused serious lines in New York and New Jersey due to the reduction in gasoline and diesel fuel supplies from petroleum terminals that were flooded, damaged or without power, as well as a number of refineries and pipelines that were also shut down. These measures are designed specifically to address instances where there are long lines at retail gas stations; events suggest this will continue to be the case unless further actions are taken.

For more information on odd-even purchase programs previously used, see:

- [State of New Jersey Executive Order 108](#)⁵⁴
- [City of New York City Executive Order 170](#)⁵⁵
- [New York City Metropolitan Area Retail Motor Gasoline Supply Report](#)⁵⁶
- [Washington Post Article on District of Columbia, Maryland, and Virginia Odd-Even Sales](#)⁵⁷

Description

This plan consists of two parts: (1) a minimum purchase plan that could be used alone; and (2) an odd-even plan that could be used alone or in conjunction with the minimum purchase requirements. This minimum purchase plan requires motorists to purchase a minimum amount of gasoline or diesel. This could be done as a voluntary suggestion or could be a requirement to pay the minimum in advance. In the odd-even plan, motorists with vehicle license plates that end in odd numbers could only purchase gasoline on odd-numbered days. Drivers of vehicles with even numbered plates could only purchase gasoline on even numbered days. Personalized license plates and any other license plates without numbers should be defined as odd. Certain emergency and essential users along with non-state residents would be exempt.

You can estimate the potential demand impact by finding the total [automobile registration](#) for your state. Assuming $\frac{3}{4}$ of registered automobiles increased the average volume of gasoline in their vehicle's tank by four gallons (as owners do when they top off their tanks), you can multiply the two numbers to estimate the increase. Next, divide the increase by monthly gasoline use to determine the percentage increase in total state demand.

Intent of Measures

The intent of this plan is to minimize tank topping in an effort to prevent or eliminate lines of vehicles waiting to purchase motor fuel and to increase fuel supply. A penalty could be imposed on any driver who purchases less than the required amount. It should be understood that a mandatory requirement increases the complexity of the program and requires retail gas station operators to enforce this

⁵⁴ New Jersey Executive Office of the Governor. Executive Order 108. Issued on November 3, 2012. <http://nj.gov/infobank/circular/eocc108.pdf>

⁵⁵ The City of New York City Office of the Mayor. Executive Order 170. Issued on November 8, 2012. <https://www.naseo.org/Data/Sites/1/new-york-city-eo-170-november-2012-odd-even-gasoline-sales-sandy.pdf>

⁵⁶ U.S. Energy Information Administration. New York City Metropolitan Area Retail Motor Gasoline Supply Report. Final report issued on November 9, 2012. https://www.eia.gov/special/disruptions/hurricane/sandy/gasoline_updates.php

⁵⁷ Washington Post. Odd-Even Gasoline Sales to Begin Here Thursday. June 19, 1979. https://www.washingtonpost.com/archive/politics/1979/06/19/odd-even-gasoline-sales-to-begin-here-thursday/dff7541b-c67f-42c4-9e0c-11450df6716f/?utm_term=.7c0d9870e65b

measure which presents an additional set of challenges. Based on this, it may be better to implement minimum purchases as a voluntary measure instead. During a period of energy emergency, tank topping removes valuable fuel from the market and encourages hoarding. When drivers are provided an incentive to refill their tanks only when necessary, motor fuel will be more equitably distributed, allowing all citizens the opportunity to refuel with shorter wait times. The odd-even plan approach attempts to deal with lines once they have occurred by reducing by one-half the number of vehicles eligible to purchase gasoline on any single day.

Conditions Under Which the Program May Be Used

This program could be used when significant lines of vehicles either develops at retail fueling stations or when conditions exist that would make them likely. Pre-conditions for the development of lines would include a shortage of motor fuel supplies resulting in significant declines of the average hours of operation by retail gasoline station owners. Lines are most likely in urban and suburban areas as people stay closer to home. Thus, this plan is probably best implemented first in urban areas. It is less likely that this measure would be needed or used in a state's rural areas, unless it is a very severe shortage or long-lasting shortage.

Legal Authority

Legal authority would be based on a public act that authorizes a governor to initiate this action. This authority exists within most states' emergency authorities during a declared state of emergency or disaster in order to provide services essential to the health, safety, and welfare of the residents of the state.

- The suggested approach is for the governor to issue an executive order to establish the plan.
- States may also authorize a designated agency to provide for resolution of disputes arising from this order.

Legal constraints, including enforcement and prosecution, could prove politically difficult in the absence of public acceptance of the program.

Implementation Procedures

1. The governor would sign an executive order implementing the program as prescribed by law, with program details specified in the plan.
2. A press release would be issued indicating when and where the program would be put into effect and indicating how the program would work.
3. Copies of the executive order would be posted on the governor's website and printed and mailed or disseminated electronically to all petroleum stations/oil companies and county and local governments in the designated area. Social media and alert notification systems could potentially be used to assure widespread distribution of information.
4. The [insert state agency name] call center, if they have one that could be used to handle inquiries, complaints, and resolve any disputes. Possible violations would be referred to the county or local police. The [insert state agency] website and other social media methods could be utilized to handle public inquiries and complaints. All public announcements would be managed by the joint public information center.

Operations and Administration

The [insert state agency] would respond and follow-up on questions or complaints about the program.

Evaluation

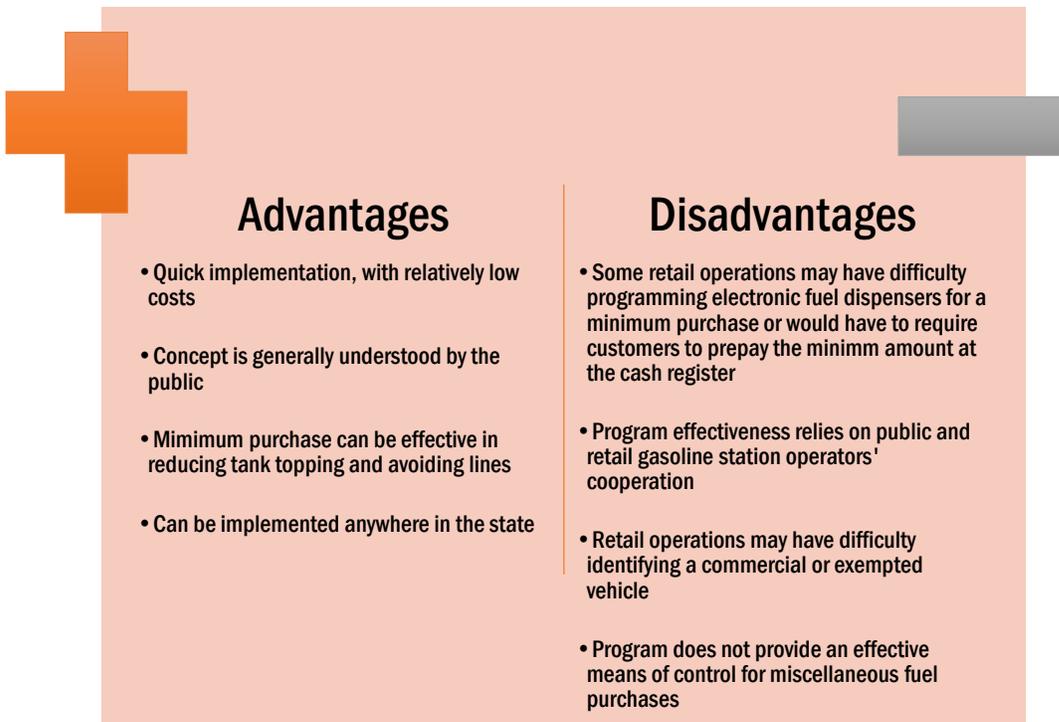
The plan's effectiveness would be monitored in two ways: (1) Service stations would be randomly called or contacted by e-mail to determine if problems were occurring as a result of the program; and (2) Records would be maintained on problems reported to the state police, including complaints by consumers and retailers. Following the discontinuation of this program, an evaluation report summarizing the above measures should be prepared.

Costs of Implementation and Operations

Implementation state-wide would include staff time required to distribute copies of the executive order through e-mail and postal mail. If the [insert state agency] already has a customer call-center, little staff education and training would be needed to handle incoming inquiries and complaints. State and local law enforcement may be requested to provide support to participating fueling stations if customers become unruly or disruptive.

The chart below (Figure 7) looks at the advantages and disadvantages of implementing a program.

FIGURE 7 PROGRAM COMPARISON CHART



**Executive Order [insert number and year]
State of [Energy] Emergency [or Disaster]
Implementation of Minimum Purchase Plan**

WHEREAS, [insert citation to legal authorities' that give the governor the authority to take the actions contained in the order];

WHEREAS, [insert a brief description of the event(s) that have required this action]; and

WHEREAS, [insert a brief description of the consequences and impacts of the event(s)]; and

WHEREAS, it is in the best interests of the State of [insert state name] to provide priority to emergency responders for petroleum product supplies needed to protect the health, safety, and economic well-being of the State's residents and visitors; and

NOW, THEREFORE, I, [insert governor's name], Governor of the State of [insert state name], by virtue of the power and authority vested in the Governor by [cite statute] upon declaration of a state of emergency in the Executive Proclamation [insert number] under this act, I, [insert governor's name], Governor, hereby implement a Minimum Purchase Plan, [statewide or in the state of or in the counties of], as set forth below on [insert time, month, day, year].

Minimum Purchase Requirements

1. No person shall purchase [insert type of fuel] from a retailer in any transaction for use in an automobile or other motor vehicle unless:⁵⁹
 - a. The price for the quantity purchased and placed into the fuel tank of that vehicle equals or exceeds [insert a whole dollar amount to be determined at the time of implementation; alternatively, if the price is increasing rapidly a gallon amount could be specified]⁶⁰.
 - b. In the case of any vehicle with an engine having less than six cylinders, or a rotary engine, the minimum purchase required shall be [insert a whole dollar amount to be determined at the time of implementation].
2. In the event that a purchase of [insert type of fuel] requires less fuel than the minimum purchase price amount, the minimum purchase price must be paid and the excess money forfeited to the retailer. Retailers may, at their discretion, allow purchasers who would otherwise forfeit [insert type of fuel] purchase funds to substitute other items for sale at the retail establishment to make up the difference between the minimum fuel purchase amount and the amount of fuel actually purchased. [State may or may not want to include this requirement because forfeiture of money could be an enforcement challenge, increase the complexity of the measure, and increase potential conflicts at gas stations already under stressful conditions.]
3. Retailers may exercise the option to collect the minimum purchase amount prior to dispensing of [insert type of fuel] into a motor vehicle or container. This may be facilitated with pre-pay and pay-at-pump options available on many fuel pumps. Each retailer, within seven (7) days after the date of issuance of this Order, shall:
 - a. Prominently display a full and complete copy of these regulations in an accessible location, along with their days and hours of operation.
 - b. Post conspicuously the following message on each gasoline fuel pump: "Legal Minimum Purchase Requirement of [insert whole dollar amount] is in Effect."
4. This order does not modify, alter, or amend existing rules concerning transportation, storing, and filling of gasoline containers in effect, including the State of [insert state name] Flammable Liquid Regulation as follows:
 - a. [Insert specific language that may exist if any on filling gasoline containers.]
5. No retailer shall engage in any form of discrimination among purchasers except as provided for in this plan or by Executive Order of the Governor. For the purpose of this order "discrimination" means extending sales or

⁵⁸ If implemented as a voluntary measure this order would not be used. Instead, public information outreach would be necessary to explain the value to reduce lines by encouraging motorists to try and purchase at least "X" gallons when filling up. If this approach is used this draft executive order would be replaced with a draft press release.

⁵⁹ Gasoline is defined for the purpose of this order as any of the various grades of motor gasoline (premium, regular, or unleaded including gasoline/alcohol mixtures-gasohol), suitable for the operation of an internal combustion engine under ASTM Specification D 4814. Diesel is defined as the various forms of diesel fuel (Number 1 and 2) used in high-speed diesel engines that are generally operated under uniform speed and load conditions, such as those in railroad locomotives, trucks, and automobiles as defined in ASTM Specification D 975.

⁶⁰ The average retail gasoline prices can be determined from AAA Fuel Gauge Report by state and major cities see: <http://www.fuelgagereport.com/> times the average size of a gas tank. The amount of gas a car holds depends on the size of the car. Smaller cars generally have gas tanks that hold 12 gallons of gas, while larger cars can hold 15 or 16 gallons. For All Gas Tank Size Specs – View Manufacturer Details - Vehicle History <https://www.research.com/vehicle-gas-tank-size-specifications>

preferential treatment that has the effect of frustrating the objective of this plan. Further, any practice that constitutes a means to obtain a price higher than the price at which the product is sold to the general public in order to provide preferential treatment is prohibited.

6. This order shall pre-empt any program for minimum purchase of sale by any local government.

Exemption

1. This minimum purchase requirement applies only to automobile or motor vehicles with a 12-gallon capacity fuel tank or greater. This minimum purchase price is subject to change by the Governor while this rule is in effect due to increased gasoline amounts.
2. The minimum purchase requirements apply between the hours of 6:00 a.m. and 10:00 p.m. daily.
3. Retailers must exempt the following types of motor vehicles from these regulations:
 - a. Police, fire, ambulance, or other emergency vehicles.
 - b. Buses, taxis, vanpools, or other commercial passenger carriers.
 - c. U.S. Postal Service vehicles, motorcycles or mopeds, and similar two-wheel vehicles.
 - d. Local, county, and state government vehicles that provide essential services for the health, safety, and well-being of citizens.
 - e. Vehicles operating in an unusual emergency situation in the judgment of the retailers.

Violation of Order

Any person who knowingly violates this directive is guilty of a [insert any penalties that may be provide by state law. For example, this might be something like a misdemeanor punishable by a fine of not more than [insert number of dollars].] Each day a violation continues is a separate offense. The Attorney General or a Prosecuting Attorney of a county may bring an action in a court of competent jurisdiction to prevent a violation of this order or to compel a person to perform a duty imposed on the person under this Executive Order.

Duration of Order

This order shall remain in effect for [insert number of] days from its effective date unless amended, superseded, or rescinded by further Executive Order. It shall expire [insert number of] days after the proclamation of a state of energy emergency unless extended as provided for in [insert reference to the statute under which this action is based. Alternatively, it could say until such time as supply conditions improve and the plan is no longer needed and the Governor issues an order rescinding the plan.]

Governor: _____

Dated: _____ [insert location]

File with [insert name of the department or legislative body with which the order may need to be filed]

DRAFT EXECUTIVE ORDER FOR ODD-EVEN PURCHASE PLAN

Executive Order [insert number and year] State of [Energy] Emergency [or Disaster] Implementation of Odd-Even Purchase Plan

WHEREAS, [insert citation to legal authorities that give the governor the authority to take the actions contained in the order];

WHEREAS, [insert a brief description of the event(s) that have required this action]; and

WHEREAS, [insert a brief description of the consequences and impacts of the event(s)]; and

WHEREAS, it is in the best interests of the State of [insert state name], to provide priority to emergency responders for petroleum product supplies needed to protect the health, safety, and economic well-being of the State's residents and visitors.

NOW, THEREFORE, I, [insert governor's name], Governor of the State of [insert state name], by virtue of the power and authority vested in the Governor by [cite statute] upon declaration of a state of emergency in the Executive Proclamation [insert number] under this act, I, [insert state name] Governor, hereby implement an Odd-Even Purchase Plan, [statewide or in the state of or to become effective in the counties of] as set forth below on [insert time, month, day, year].

Odd-Even Gasoline Purchase Requirements

If a state has other unique means used in license plate identification, the following should be adapted to be consistent with the plate numbering and lettering used in the state.

At the retail level, gasoline (and/or) diesel fuel⁶¹ shall be dispensed into vehicles with a license plate ending in an odd number (1, 3, 5, 7 and 9) only on odd numbered days of the month (first, third, fifth, seventh, and ninth). Personalized license plates and any other license plates without numbers shall be defined as odd. Examples of odd day license plates are: BBB 1333, KBC 475, and BERTHA.

1. At the retail level, gasoline (and/or) diesel fuel shall be dispensed into vehicles with a license plate ending in zero or an even number (0, 2, 4, 6 and 8) only on even numbered days of the month (second, fourth, sixth, eighth, and tenth (zero)). Examples of even day license plates are: BBB 020, RMP 768, and KBC 776.
2. If a vehicle license plate contains both letters and numbers and the last digit is a letter, the last or only number digit will determine whether sale of gasoline is eligible on an odd or even day. Examples of license plates containing letters as last digits are 123 FT (odd day), 764 NT (even day), and 468 GN (even day).
3. For any calendar month in which there are 31 days, and in February of a leap year, sales shall be made on the last day of the month without regard to the digits of the license plates.

Exemptions

Retailers must exempt the following types of motor vehicles from these regulations:

1. Police, fire, ambulance, or other emergency vehicles.
2. Buses, taxis, vanpools, or other commercial passenger carriers.
3. U.S. Postal Service vehicles.
4. Motorcycles or mopeds, and similar two-wheel vehicles.
5. Vehicles bearing out-of-state license plates.
6. Vehicles registered or operated by a person with a current valid driver's license from outside the area under the odd-even purchase plan.
7. Local, county, state, and federal government vehicles that provide essential services for the health, safety, and well-being of citizens.
8. Vehicles operating in an unusual emergency situation in the judgment of retailers.
9. Vehicles with license plates with handicap designation.

⁶¹ Gasoline is defined for the purpose of this order as any of the various grades of motor gasoline (premium, regular, or unleaded including gasoline/alcohol mixtures –gasohol), suitable for the operation of an internal combustion engine (defined under ASTM Standard D 439-70). Diesel is defined as the various forms of diesel fuel (Number 1 and 2) used in high-speed diesel engines that are generally operated under uniform speed and load conditions, such as those in railroad locomotives, trucks, and automobiles as defined in ASTM Specification D 975.

Violation of Order

Any person who knowingly violates this directive is guilty of [insert any penalties that may be provided by state law. For example, this might be something like a misdemeanor punishable by a fine of not more than [insert number of dollars].] Each day a violation continues is a separate offense. The Attorney General or a Prosecuting Attorney of a county may bring an action in a court of competent jurisdiction to prevent a violation of this order or to compel a person to perform a duty imposed on the person under this Executive Order.

Duration of Order

This order shall remain in effect for [insert number of] days from its effective date unless amended, superseded, or rescinded by further Executive Order. It shall expire [insert number of] days after the proclamation of a state of energy emergency unless extended as provided for in [insert reference to the statute under which this action is based. Alternatively, it could say until such time as supply conditions improve and the plan is no longer needed and the governor issues an order rescinding the plan.].

Governor: _____

Dated: _____ [insert location]

File with [insert name of the department or legislative body with which the order may need to be filed]

c) STATE PETROLEUM SET-ASIDE PROGRAMS FOR BULK PURCHASERS

Summary

The purpose of a petroleum set-aside program is to allow the state to allocate limited fuel supplies to end users to assure the public's health, safety, and welfare, including law enforcement, fire, medical, water, food, transportation, and telecommunications services. The program requires each major oil company supplying the state to reserve (set-aside) a fixed percentage of petroleum products that are projected to be delivered to the state for final consumption each month. Petroleum products are then allocated to customers in amounts designated by the state agency administering the program. Implementation of a state's set-aside program involves a number of steps including: (1) the submission of an application for hardship assistance from customers with supporting documentation; (2) the validation of the information submitted and other factors contributing to the problem; and (3) a process for making a decision in each case. In addition, some procedures are required to be in place for follow-up, including appeals and oversight, which in some states would be handled by the attorney general.

A state petroleum set-aside program could require up to a month to implement and is labor intensive. It is not well suited for events where recovery to normal conditions can be achieved quickly within a week or two. It is generally only suitable for petroleum shortages that are very serious and long-standing, are most likely to occur during a long-term, international petroleum disruption, long-term power outages or a large scale natural disaster like a major earthquake.

A number of states have set-aside as part of the petroleum contingencies plan; as such, it is a more common contingency for which there is a greater opportunity to develop a more uniform approach within a multistate region. This program was in use between 1973 and 1981 under the federal Mandatory Petroleum Allocation Program.

For more information see the following:

- Appendix F of the State Energy Assurance Guidelines⁶²
- Introduction and closing notes of NASEO's Petroleum Fuel Set-Aside and Petroleum Shortage Supply Management: Options for States⁶³

Description

The governor would establish a state set-aside program by executive order upon declaration of an emergency and authorize a designated state agency to operate the program. This measure would require that each major oil company (also known as a prime supplier) operating in the state set aside up to three percent of the total anticipated supply of gasoline and diesel fuel, propane and heating oil, if needed, each month. If the shortage is only affecting a single fuel, the set-aside can be used for that specific fuel as needed. The state would be authorized to direct the sale of this reserve to bulk purchasers who demonstrate that they need the product to perform essential public services. Essential services whose fuel needs are met exclusively through retail gas stations would not be supplied through this program.

⁶² National Association of State Energy Officials. State Energy Assurance Guidelines, Version 3. December 2009. http://www.naseo.org/Data/Sites/1/documents/energyassurance/eaguidelines/State_Energy_Assurance_Guidelines_Version_3.1.pdf

⁶³ National Association of State Energy Officials. Petroleum Fuel Set-Aside and Petroleum Shortage Supply Management: Options for States. September 2012. http://www.naseo.org/data/sites/1/documents/publications/Petroleum_Shortage_Supply_Management.pdf

Intent of Program

The state set-aside program is designed to provide supplies of fuel to bulk users experiencing an emergency or severe hardship caused by a shortage (sometimes referred to as “low probability/high consequence” events)⁶⁴. This would only be used in the most serious longer-term shortages. The program provides a mechanism for maintaining essential services by providing fuel supplies to meet the emergency needs of the following users. This list may be modified depending on the nature of the problem and potential consequences. Keeping eligible categories limited will provide for a more manageable program administratively, with groups that do not have a serious need excluded. For example, snow removal during a shortage in the summer would not be needed.

- Residential, institutional, and commercial space heating
- Agricultural producers and distributors of perishable food
- Emergency medical services
- Energy suppliers
- Firefighting units
- Law enforcement
- Public mass transportation, including school buses
- Sanitation services
- Snow removal
- Communications companies
- Utility crews
- Water and waste water supply and treatment

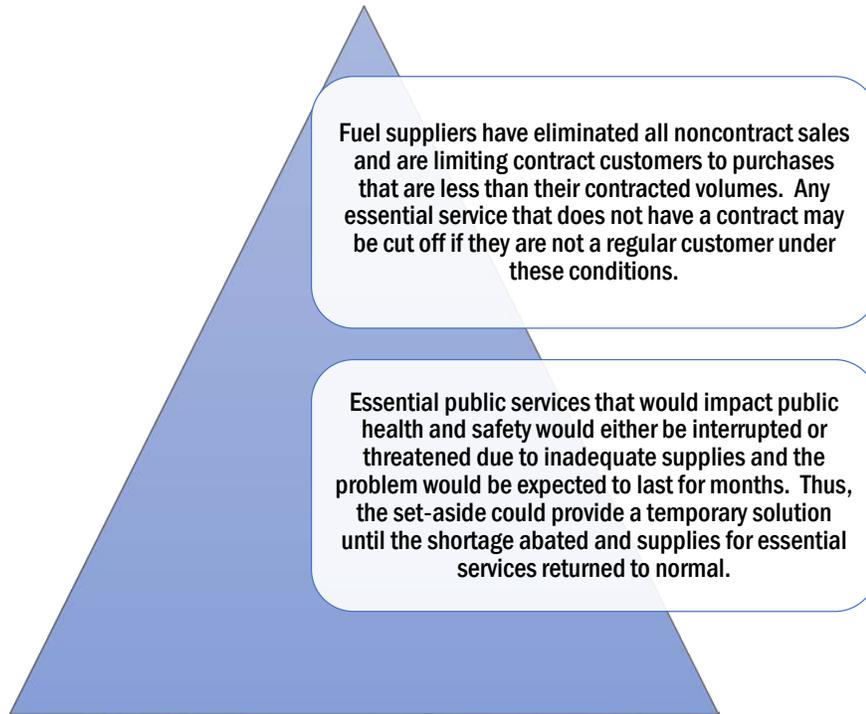
If the petroleum priority users program for bulk purchasers has been implemented, then law enforcement, firefighting units, and emergency medical services should be receiving current fuel requirements and would have little need to request additional supplies through the set-aside program and may not need to be included in the eligible categories list. If additional categories are added to that priority program they also may also be excluded from the set-aside program.

Conditions Under Which the Program May Be Used

The set-aside program could be used after the governor declared an emergency. The decision to implement the program will depend, in large part, on whether the market will provide bulk users with sufficient gasoline supplies to maintain essential services. During a petroleum shortage, the responsible state agency will monitor supplies, demand, and prices through contact with oil suppliers and other

⁶⁴ This could include events such as a New Madrid or Cascadia Subduction Zone earthquake, major electromagnetic pulse, nuclear detonation, etc.

sources, such as the Energy Information Administration, and programs like the State Heating Oil and Propane Program. The set-aside program would be implemented when the following conditions exist:



In a serious petroleum shortage, provisions of the Uniform Commercial Code may apply, including Section 2-615⁶⁵. The code covers commercial transactions and has provisions that address conditions when a supplier is unable to meet its supply obligations. Section 2-615 permits a seller to breach its contract with a buyer if delivery “has been made impracticable by the occurrence of a contingency” caused by events outside of the supplier’s direct control. Some states may not have enacted this code exactly as it was proposed and in cases where the state did not adopt the code there may be common law doctrines that would otherwise apply under these circumstances. States should review adoption of this code under state statute to understand specifically how these provisions might apply in their states.

Note that under Section 2-615 the seller must allocate available supply in a fair and reasonable manner. Historically, when this provision triggered allocations of petroleum products, supplies were either allocated as a percentage of contractual volumes or based on the prior year’s actual purchases. Should such a condition occur, suppliers may not be able to discriminate within a class of accounts to give priority to one user over another. This may require state action under emergency authority to specify those uses that should be given priority attention to assure essential public needs are met. States should discuss this issue with their suppliers to determine how they would address this situation, and contingencies can be crafted to assure that essential public needs are met.

This program would be used most often when the State Petroleum Priorities for Essential Services Program would be in effect or implemented at the same time. The designation of priorities would not require further state actions. The set-aside program could then focus on other essential needs on a

⁶⁵ See Uniform Commercial Code, § 2-615. Excuse by Failure of Presupposed Conditions. <https://www.law.cornell.edu/ucc/2/2-615>

case-by-case basis, reducing the workload by already having addressed the most critical public safety needs.

Legal Authority

The governor, after declaration of an energy emergency, would issue an executive order directing each prime supplier⁶⁶ to the state to establish a set-aside program and appoint an individual within the company to act as the principal contact for the state in administration of the program. [Insert name of state agency] would promulgate emergency administrative rules and procedures governing the eligibility of applicants as may be required. This order and administrative rules will provide the legal basis for the release of the set-aside program.

Legal Issues and Constraints

Distributors might claim a market advantage has been provided to competitors by increasing their supply through the set-aside. [This and any additional legal questions or impediments should be explored by state legal counsel.]

Implementation Procedures

1. The governor will issue an executive order establishing the set-aside program, and direct [insert name of the designated state agency] to administer the program.
2. The governor will immediately notify representatives of all prime suppliers operating in the state that the set-aside program will be put into operation. Each company will be asked to appoint a company representative to act for and on behalf of the company for administration of the program. Within [insert number of] days, each company will provide the [insert name of the designated state agency] with the name, telephone number(s) and email address of the appointed representative. A package of information including the executive order, a copy of the application, and administrative rules will be provided to each prime supplier and petroleum jobber/distributor.
3. The state set-aside volume shall be based on the total anticipated supply to be made available to the state's distribution system for final consumption within the state. The U.S. Energy Information Administration's [Prime Suppliers Monthly Report EIA-782](#)⁶⁷ will serve as the basis for this information that, if unavailable, shall be directly collected on a comparable state report. The EIA 782c currently only requires the monthly sales in thousands of gallons for the total volume sold into the state where delivery of product occurs. For the purpose of this program, prime suppliers will need to report as they do now the prior month's actual deliveries and in addition the anticipated deliveries expected to be made in the upcoming month, which will serve as the volumes for which a percentage will be set-aside. A modified reporting form with this additional column for anticipated sales will need to be developed by the state for use with this program.

Note: States expected to include a set-aside program as part of their petroleum contingency plans, if not already collecting the individual prime supplier monthly report, are encouraged to obtain the company respondents list from EIA for their states by contacting Maureen Klein (maureen.klein@eia.gov or 202.586.8013). States should then contact each prime supplier to request a copy of the companies'

⁶⁶ Prime supplier is defined by the U.S. Energy Information Administration for reporting purposes as "a firm that produces, imports, or transports selected petroleum products across state boundaries and local marketing areas, and sells the product to local distributors, retailers, or end-users."

⁶⁷ U.S. Energy Information Administration. Monthly Report of Prime Supplier Sales of Petroleum Products Sold for Local Consumption. <https://www.eia.gov/survey/#eia-782c>

monthly 782c filing. Please note that in the instructions to the 782c form it says: “The State Energy Offices are vitally interested in receiving information identical to that contained on the EIA-782c. To ensure consistent reporting, respondents may provide a duplicate of each Form EIA-782c directly to the appropriate State office. Information provided to State Energy Offices is not subject to federal regulations governing disclosure of company level data described in Section 8. Contact your State Energy Office for details on their data confidentiality policies and regulations.” It is also suggested in the letter to the prime suppliers that states indicate how this data may be exempt from disclosure under the state’s freedom of information act if there is an appropriate exemption for such information.

4. If the [insert name of the designated state agency] has a pre-existing call center and toll-free number that could be used in an emergency to handle calls related to the program, that will help simplify implementation. If not, establishing and staffing a call center will be resource intensive and advanced planning on how this will be done should be addressed in detail in the plan. Alternatively, online submissions using electronic forms on the designated agency website might be an option. Implementation lead time should be estimated and will vary significantly depending on the level of existing resources that might be leveraged.
5. A press release will be prepared for the governor notifying the public and essential public service that a set-aside program will be put into operation. The release will contain a toll-free number and/or website where the public may receive more detailed information and a set-aside application or online submission system. A draft press release should be prepared as part of this plan.

Operations and Administration

Eligible applicants will submit an application to a special-purpose email address, or as time might permit an online web-based application process could be developed if the event is expected to be of a longer duration. Alternatively, applicants could call the [insert the name of the designated state agency] if the situation is extremely critical and a call center has been established, in which case a telephone release may be made, and a follow-up application would be returned by the applicant to the [insert the name of the designated state agency] within one week. Upon receipt of the application for emergency assistance, the [insert the name of the designated state agency] will investigate, verify, and evaluate each for eligibility. To facilitate relief for these users, jobbers and distributors may submit an application on behalf of essential users, if they specifically detail and obtain signed documents stating the emergency needs of each end-user. Applicants must certify that all information contained on the application is true and accurate. Spot checks will be conducted to assure releases are made only for legitimate needs and are not stockpiled or resold. Any applicant who has knowingly provided false information will be subject to penalties provided for under [insert the name and section of applicable statute or rule].

Because demand for emergency assistance could potentially result in an overwhelming number of requests in more populous states, an alternative approach might rely on channeling requests through city or county emergency operations centers that may be able to better validate and prioritize requests locally before forwarding requests to the state for processing. This requires the necessary staff at the local level to handle requests but does follow the typical process for emergency resources that originate locally and are then submitted to the state.

Designated prime supplier contacts will be notified in writing and by telephone or email of those applicants to which a release of a specific designated quantity fuel (number of gallons) should be made. Applicants will be notified of approval or denial of their application. Applicants typically should make arrangements to purchase the fuel from the normal supplier at the contract price or mutually agreed upon price. Applicants who have been denied will be advised of their right to appeal to the [insert the

name of the designated state agency]. The case and the appeal will be reviewed and a decision rendered within [insert number of] days.

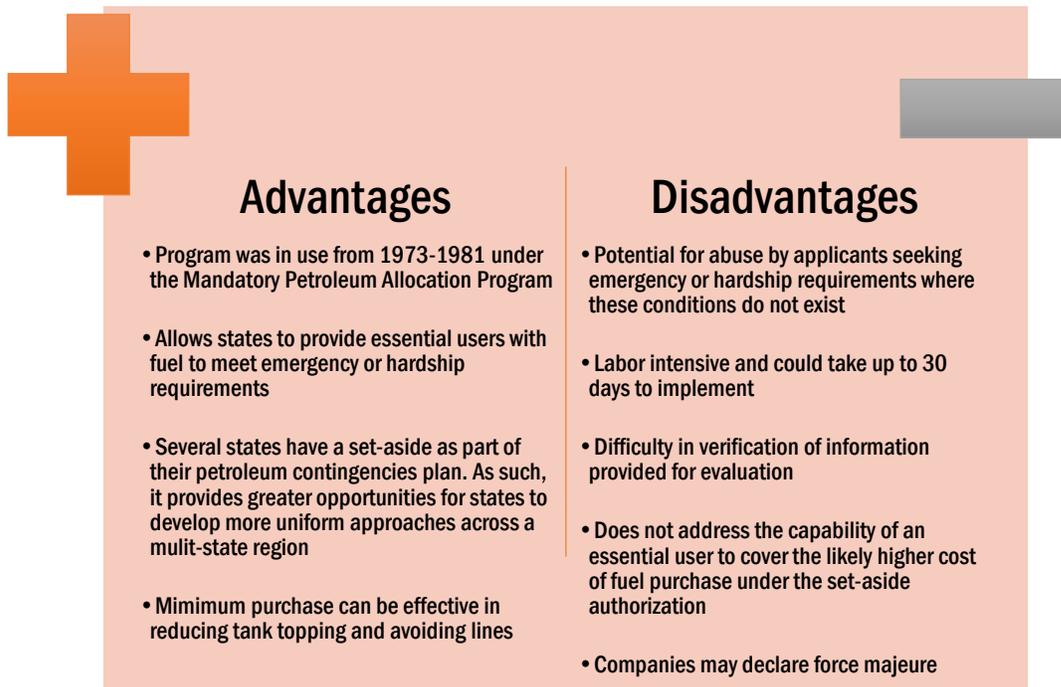
[Insert the name of the designated state agency] will need to keep track of the drawdown of the set-aside volumes. Much like a checkbook ledger for each prime supplier beginning with the total set-aside amount at the beginning of the month, the amount of each emergency fuel allocation made from that company to its customers will need to be subtracted from the total to know the remaining balance. Once the set-aside for any given company has been allocated no additional allocation can be made for that month. Some suppliers may have remaining unallocated balances.

Evaluation

A follow-up survey of randomly selected set-aside applicants could be conducted to assess program responsiveness and effectiveness. The survey should request information on the number of calls necessary to reach the [insert the name of the designated state agency], the number of days the applicant waited before the case was resolved, the number of days the applicant was without fuel, etc. Records of calls received and applications processed will also be maintained.

Cost of Implementation and Operations

Start-up and operational costs would include any additional equipment or staff needed for a period of at least 60 to 90 days depending on the severity and scope of the problem. Existing staff would likely be utilized first, but additional managers, case resolution staff, and administrative support staff is likely to be necessary and would also need to be trained. Travel expenses would also be provided for enforcement of on-site checks to resolve applicants' issues.



Advantages	Disadvantages
<ul style="list-style-type: none">• Program was in use from 1973-1981 under the Mandatory Petroleum Allocation Program• Allows states to provide essential users with fuel to meet emergency or hardship requirements• Several states have a set-aside as part of their petroleum contingencies plan. As such, it provides greater opportunities for states to develop more uniform approaches across a multi-state region• Minimum purchase can be effective in reducing tank topping and avoiding lines	<ul style="list-style-type: none">• Potential for abuse by applicants seeking emergency or hardship requirements where these conditions do not exist• Labor intensive and could take up to 30 days to implement• Difficulty in verification of information provided for evaluation• Does not address the capability of an essential user to cover the likely higher cost of fuel purchase under the set-aside authorization• Companies may declare force majeure

DRAFT EXECUTIVE ORDER FOR EMERGENCY PETROLEUM SET-ASIDE

Establishment of State Emergency Set-Aside for [insert name of petroleum products to be set aside] Executive Order [insert number and year] Authority and Scope

WHEREAS, [insert citation to legal authorities that give the governor the authority to take the actions contained in the order];

WHEREAS, [insert a brief description of the event(s) that have required this action]; and

WHEREAS, [insert a brief description of the consequences and impacts of the event(s)]; and

WHEREAS, it is in the best interests of the State of [insert name] to establish the ability to provide emergency fuel supplies to emergency responders needed to protect the health, safety, and economic well-being of the State's residents and visitors; and

NOW, THEREFORE, I, [insert governor's name], Governor of the State of [insert state name], by virtue of the power and authority vested in the Governor by [cite statute] upon declaration of a state of emergency in the Executive Proclamation [insert number] under this act,

I, [insert governor's name], Governor, hereby implement a State Emergency Set-Aside Program for [insert names of the petroleum products to be set aside], [statewide or in the state of], as set forth below on [insert time, month, day, year].

I hereby designate [insert the name of the designated state agency] as the state office responsible for the administration of the State Set-Aside Program as set forth below. In this capacity, the [insert the name of the designated state agency] or as referred to hereafter as the "state office" shall have the following duties and responsibilities:

1. Promulgate administrative rules that will specify the procedures and criteria for obtaining relief from the set-aside.
2. Provide a mechanism that will allow for appeals of any decisions made by the state office.
3. Provide a means to assure that fuel released from the state set-aside is used for hardship purposes only.
4. Utilize the set-aside to provide for the health, safety, and welfare of the citizens of [insert state name].

State Set-Aside Program

1. Volumes to be set-aside for emergency fuel allocation.
 - a. A prime supplier shall inform the state office, not later than one week before the first day of each month, of the estimated volume projected monthly sales of petroleum products subject to State Set-Aside Program to be delivered into the state of [insert state name] for consumption within the state for the upcoming month. This will be consistent with the Prime Suppliers Monthly Report EIA-782c⁶⁸ required to be reported to the U.S. Energy Information Administration that contains the prior month's deliveries and using this same format the prime supplier shall provide the volumes that are estimated to be delivered for sales in the upcoming month
 - b. The set-aside volume available to the state office for a particular month shall be the amount calculated by multiplying .03⁶⁹ by each prime supplier's total projected deliveries to be available in the subsequent month for consumption within the state of [insert state name].
 - c. The state set-aside for a particular month may not be accumulated or deferred, but shall be made available from stocks and deliveries of prime suppliers whether directly or through their wholesale purchaser-resellers.
 - d. Volumes remaining in a prime supplier's set-aside at the end of the month that have not been used shall revert back to the supplier to become part of the subsequent month's supply and shall be retained and made available to accounts and customers in the state of [insert state name] in an equitable manner.
2. Company Representative – Each prime supplier shall designate a company representative to act for and on behalf of the prime supplier with respect to the State Set-Aside Program. Each prime supplier shall notify the state office, in writing and within 10 work days of the date of this order, of such designation including name, title, physical address, phone number, and email address.

⁶⁸ U.S. Energy Information Administration. Prime Suppliers Report. <https://www.eia.gov/petroleum/marketing/prime/>

⁶⁹ A state could elect to set aside a smaller amount than 3%. It should take no more fuel off the market than needed. Check the total amount to be set aside before making a final decision.

3. Authorizing Document – The state office shall issue a document authorizing the assignment of the amount of petroleum products to be released from the set-aside upon full or partial approval of an applicant’s request. A copy of this document shall also be provided by the state office to the designated company representative of the prime supplier from which the assignment is to be made. An authorizing document issued by the state office is effective upon issuance and represents a call on the prime supplier’s set-aside volumes for the month of issuance, even in cases where delivery of the product subject to the authorizing document cannot be made until the following month.
4. Area Release of State Set-Aside
 - a. At any time during the month, the state office may order the release of part or all of a prime supplier’s set-aside volume to its customers through the prime supplier’s normal distribution system in the state.
 - b. The state office may designate certain geographical areas within the state as suffering from an intrastate supply imbalance. At any time during the month, the state office may order some or all of the prime suppliers with purchasers within such geographical areas to release part or all of their set-aside volume through their normal distribution systems. This will increase the allocation to all the supplier’s purchasers located within such areas.
5. Orders issued pursuant to this declaration shall be in writing and effective immediately upon presentation to the prime supplier’s designated company representative.
6. Prevailing Price – Any assignments made from the set-aside under this order shall be made available to the wholesale purchaser-consumer or end-user at prices prevailing for the same class of purchasers and products in the locality of the wholesale purchaser-consumers, end-user, or wholesale purchaser-reseller at the time of the sale.

Violation of Order

Any person who knowingly violates this directive is guilty of a [insert any penalties that may be provided by state law. For example, this might be something like a misdemeanor punishable by a fine of not more than [insert number of dollars].] Each day a violation continues is a separate offense. The Attorney General or a Prosecuting Attorney of a county may bring an action in a court of competent jurisdiction to prevent a violation of this order or to compel a person to perform a duty imposed on the person under this Executive Order.

Duration of Order

This order shall remain in effect for [insert number of] days from its effective date unless amended, superseded, or rescinded by further Executive Order. It shall expire [insert number of days] after the proclamation of a state of energy emergency unless extended as provided for in [insert reference to the statute under which this action is based. Alternatively, it could also say until such time as supply conditions improve and the plan is no longer needed and the governor issues an order rescinding the plan.]

Governor: _____

Dated: _____ [insert location]

File with [insert the name of the department or legislative body with which the order may need to be filed]

DRAFT EMERGENCY RULES FOR STATE PETROLEUM SET-ASIDE PROGRAM

Emergency Rules State Petroleum Set-Aside Program

These rules take effect upon filing with the [insert the name of the appropriate state agency should your state have a requirement for the filing of administrative rules].

By authority conferred on [insert state agency name], by the Governor upon the proclamation of an emergency and by Executive Order [insert number] on [insert month, day, year] under [insert full legal citation to the act and section of the act upon which this authority is based.].

FINDING OF EMERGENCY

By executive order the Governor has declared that a state of [energy] emergency exists. Under powers granted to the Governor during a declared state of energy emergency, Executive Order [insert number and year] was issued establishing a State Set-Aside Program. In this order, the Governor designated [insert state agency name] as the agency responsible for the administration of this program. Further, it required a mechanism to resolve any disputes arising out of the use of this plan. The following rules are intended to outline an appeals procedure that will provide this mechanism.

Delay in establishing rules of procedure to effectively carry out the duties delegated to the [insert state agency name] regarding the administration of the State Set-Aside Program might well constitute a threat to the citizens of the state due to the lack of petroleum products. To avoid this threat and to assure that essential public needs are met [insert state agency name] finds the following rules are needed for the preservation of public health, safety, and welfare and that an emergency exists within the meaning of [insert the legal reference to the state law and executive order under which it is to be implemented].

Rule 1: Definitions

- (1) As used in these rules:
 - (a) “Current requirements” means the supply of an allocated product needed by an end-user or wholesale purchaser to meet its present supply requirement for one month.
 - (b) “State Office” means [insert state agency name].
 - (c) “Director” means the director of [insert state agency name], or the designee thereof, other than the director as defined in these rules.
 - (d) “Distillate fuel oil” means a general classification of one of the petroleum fractions produced in conventional distillation operations. It is used primarily for space heating, on- and off-highway diesel engine fuel (including railroad engine fuel and fuel for agricultural machinery), and electric power generation. Included are products known as Number 1 and Number 2 fuel oils; and diesel fuels as covered by ASTM specifications D396 and D975. It does not include kerosene type jet fuel.
 - (e) “End-User” means any person who is an ultimate consumer of a petroleum product other than a wholesale purchaser-consumer.
 - (f) “Motor gasoline” means any of the various grades of motor gasoline (premium, regular, or unleaded, including gasoline/alcohol mixtures such as gasohol), suitable for the operation of an internal combustion engine and defined under ASTM specification D439-88.
 - (g) “Officer” means the fuel allocation officer authorized to sign orders and to authorize documents for the set-aside assignments.
 - (h) “Order” means a written or oral directive followed by written confirmation issued by the officer with respect to state set-aside assignments. It also means a written determination by the director relative to an appeal from an order of the officer.
 - (i) “Person” means an individual, corporation, firm, governmental unit, organization, or any other establishment whatsoever.
 - (j) “Prime Supplier” means the supplier or producer who makes the first sale of petroleum products into the state distribution system for consumption within the state.
 - (k) “Propane” means a normally gaseous paraffinic compound (C₃H₈), which includes all products covered by natural gas policy act specifications for commercial and HD-5 propane and ASTM specification D1835. Excludes feedstock for propane, which is propane not classified as consumer grade propane, including the propane portion of any natural gas liquid mixtures such as butane-propane mix.
 - (l) “Purchaser” means a wholesale purchaser or an end-user, or both.
 - (m) “Retail” means any retail gasoline station, jobber or distributor which sells motor gasoline, propane and/or distillate fuel oil directly to an end-user.

- (n) "Service" means personal service or service by registered or certified United States mail, postage prepaid. Service upon a person's duly authorized representative shall constitute service upon the person. Service by mail is complete upon mailing.
- (o) "Set-aside assignment" means an order directing a prime supplier to make a product from its state set-aside available to a designated person.
- (p) "State set-aside" means, with respect to a particular prime supplier, that amount of the specified petroleum products (e.g., motor gasoline, propane or distillate fuel oil) that is made available from a percentage of the projected monthly sales by prime suppliers for utilization to resolve emergencies and hardships due to fuel shortages. The state set-aside amount for a particular month is calculated by multiplying the state set-aside percentage level by the projected monthly sales expected to be made in the upcoming month by the prime supplier's prepared using a method consistent with the actual monthly sales made in the prior month as reported under Part 4 of the EIA-782C, the Monthly Report of Prime Suppliers Sales of Petroleum Products Sold for Local Consumption, and filed by said supplier.
- (q) "Supplier" means a firm or subsidiary of a firm, other than the United States Department of Defense, that presently or during the last 12 months, supplies, sells, transfers, or otherwise furnishes, such as by consignment, motor gasoline, propane and distillate fuel oil to wholesale purchasers or end-users, including, but not limited to, refiners, importers, resellers, jobbers, or retailers.
- (r) "Wholesale purchaser" means a wholesale purchaser-reseller or a wholesale purchaser consumer.
- (s) "Wholesale purchaser-consumer" means an ultimate consumer that, as part of its normal operation, purchases or obtains petroleum products from a supplier and receives delivery of that product into a storage tank substantially under the control of that firm at a fixed location.
- (t) "Wholesale purchaser-reseller" means a person who purchases, receives through transfer, or otherwise obtains, such as by consignment, motor gasoline, propane and distillate fuel oil and who resells or otherwise transfers it to other purchasers without substantially changing its form, excluding retailers.

Rule 2: State Set-Aside: Assignments; Eligibility; Criteria; Amounts; Application; Decision; Issuance; Order

- 1) The following persons may apply for an assignment under the state set-aside program:
 - a. A wholesale purchaser-consumer or an end-user who seeks an assignment to meet the needs for any of the following uses due to a hardship or emergency, or other users in extenuating circumstances where a direct threat to the public's health, safety, or welfare may exist. These include:
 - i. Residential, institutional, and commercial space heating
 - ii. Agricultural producers and distributors of perishable food
 - iii. Emergency medical services
 - iv. Energy suppliers
 - v. Firefighting units
 - vi. Law enforcement
 - vii. Public mass transportation, including school buses
 - viii. Sanitation services
 - ix. Snow removal
 - x. Communications companies
 - xi. Utility crews
 - xii. Water and waste water supply and treatment
 - b. An officer may order an assignment of an allocated product from the state set-aside in circumstances involving hardship or emergency to those persons specified in sub-rule (1)(a). Such circumstances include either of the following:
 - i. The person specified in sub-rule (1)(a) is undergoing curtailment of motor gasoline, propane, and distillate fuel oil for reasons beyond his or her control that are not a result of the inability to pay.
 - ii. The issuance of an assignment order is necessary to avoid, alleviate, or minimize a situation affecting the health, safety, or welfare of a person specified in sub-rule (1)(a).
- 2) An application for assignment under the state set-aside shall be made by completing the appropriate form and filing it with the officer. The appropriate form should be made available by the [insert state agency name]. Each applicant shall certify by way of a sworn statement testifying to the truth and accuracy of the information contained in the application. The officer may accept an oral application when it is extremely impractical to require written application in order to avoid an emergency situation. Persons allowed to make an oral request for state set-aside shall nevertheless file a completed form with the officer within five work days following acceptance of the oral request. A wholesale purchaser-reseller who supplies petroleum products to a wholesale consumer, or purchaser-reseller who supplies petroleum products to a wholesale consumer or end-user outlet shall attach an addendum to their application identifying each person on whose behalf the wholesale purchaser-reseller is requesting a set-aside

- assignment, the location of each wholesale consumer and end-user, the number of gallons requested for each, and provide verifying signatures.
- 3) Within fifteen (15) work days after receiving the application for state set-aside, the officer shall issue an assignment order, or shall deny the request. In the case of a denial, the officer shall serve the applicant with a copy of the denial. The officer may consider any information deemed relevant in making the determination; the officer may postpone a decision and convene a conference. Should any applicant refuse to cooperate during an investigation, the officer may dismiss the application on those grounds alone.
 - 4) Excluding exceptional cases, state set-aside assignments shall be issued to the prime supplier from whom the applicant is normally supplied. If the set-aside of a prime supplier is exhausted, the officer may issue assignments to alternate primer suppliers, or may split assignments between prime suppliers.
 - 5) Upon approval of a state set-aside assignment, the officer shall issue a written order authorizing the assignment and serve it on the prime supplier, or a designated local distributor of the prime supplier, from whose set-aside the assigned product is to be drawn. Service of an order upon a prime supplier, or its local distributor, by the officer is deemed to be a submission on behalf of the applicant. An order issued by the officer under this section is effective upon issuance, unless stayed, modified, suspended, or rescinded, and represents a call on the prime supplier's set-aside volume for the month of issuance, even if delivery of the product cannot be made until the following month.

Rule 3: State Set-Aside: Appeals; Petition; Stay Order; Response; Decision

- 1) A person aggrieved by an order of the officer pertaining to state set-aside may file a written petition of appeal to the director not later than ten (10) work days after being served with an order of assignment or denial order. The petition shall include:
 - a. The name and address of the petitioner.
 - b. A concise statement of facts surrounding the case, including the reason for the appeal and relief sought.
 - c. The names and addresses of persons known to petitioner who may be affected adversely by the outcome of the appeal. The petitioner shall attach a sworn statement to the petition stating the information provided in the petition is true to the best of the petitioner's knowledge.
- 2) A written request for a stay of the assignment order pending outcome of appeal may be presented along with the petition. The stay order shall be granted only upon a finding that there is just cause to believe one of the following:
 - a. In the absence of a stay order, petitioner will suffer irreparable harm.
 - b. The objectives of the state set-aside program will be frustrated, and the order of the officer should be reversed.
- 3) The director shall, within three work days after the filing of a petition, serve a copy of the petition on known persons who might be affected adversely by the outcome of the appeal. Persons served with a petition may, not later than five work days from service of the petition, file a written reply, supported by a sworn statement to the effect that the information in the reply is true to the best of the respondent's knowledge. A copy of the response shall be made available to the petitioner.
- 4) Within 20 work days after the petition of appeal is filed, the director shall render a decision in the case and serve it upon all persons who participated in the appellate proceeding, and any other person who is aggrieved by the decision and order. A person is not deemed to have exhausted his or her administrative remedies unless that person has appealed under this rule and a decision has been rendered.

6. Indicate total amount of product received each month from supplier(s) for the base year (Month/Year) through (Month/Year).

Base Period of Supply Volume by Month in Gallons (Indicate the year next to the month)

Month	Year	Supply Volume	Month	Year	Supply Volume
January			July		
February			August		
March			September		
April			October		
May			November		
June			December		
Total Base Period Supply Volume					

Does this base period supply volume agree with your supplier? Check Yes No

7. The following question is for motor fuel requests only:

a. Indicate your purchases (gallons) in:

October (Year) _____ November (Year) _____ December (Year) _____
 January (Year) _____ February (Year) _____ **Five Month Average** _____

b. Did you overdraw on your allocation last month? Yes No By how much (gallons)? _____

If yes, please provide explanation for the overdrawn allocation:

8. Describe the type of customers you are requesting product for, the nature of the business, and amount of product requested for each. Attach additional sheets as necessary.

Business Name and Phone Number	Type of Business	Fuel Requirement Amount Requested (Gallons)

9. Describe in complete detail the reason or your hardship. Please be specific. Explain all circumstances and situations related to hardship request. This information will be investigated and will act as the principal basis for evaluation of the request. For each of the customers listed above, indicate the nature of the supply problems. Attach additional sheets as necessary.

10. Certification (Please remember to sign).
 I certify that all of the above information is true and accurate and that any quantity granted will be used for purposes herein described and will not be diverted to other uses. I further certify that I have an energy conservation program in effect.

Name and Title	Signature	Date
[Cite law and penalties that might be imposed under state laws for providing false or misleading information]		
If different than above Prepared by: _____		

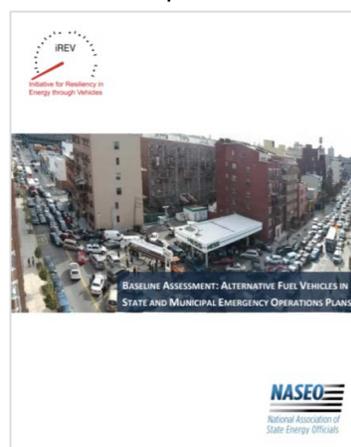
d) USE OF ALTERNATIVE FUEL VEHICLES PROGRAMS

Summary

States and local governments that have a significant number of alternative fuel vehicles (AFV) in their fleets may have an opportunity to maximize the use of these vehicles during shortages of gasoline and diesel fuel. Shortages of gasoline and diesel could also potentially affect the short-term response and recovery efforts. This measure requires preplanning to identify available AFV and fueling locations, which can be done by using a tracking tool developed for this purpose.

Vehicles that run on alternative fuels — such as biodiesel, electricity, natural gas, and propane — can help build resilience by diversifying an emergency response fleet. If a storm or other emergency disrupts a state's primary fuel supply, emergency managers should have a plan to activate fleets that run on alternative fuels to perform essential services. Integrating alternative fuel vehicles into petroleum shortage contingency and emergency operation plans will allow a state to rely on a diversified pool of fuel resources in the event of a petroleum shortage.

The National Association of State Energy Officials has launched a nationwide initiative — the [Initiative for Resiliency in Energy through Vehicles](#)⁷⁰ (iREV) — to help integrate alternative fuel vehicles into emergency operation plans. iREV has developed a series of reports that outline the benefits of alternative fuel vehicles, highlight ways that these fuels have helped states and communities during emergencies, and recommend actions that states can take to integrate alternative fuel vehicles into future emergency plans. Four case studies provide basic information on [biodiesel](#)⁷¹, [electric](#)⁷², [natural gas](#)⁷³, and [propane](#)⁷⁴ vehicles for emergency planners and provide key context for why alternative fuels should be considered during the emergency planning process, and used during emergencies. A subsequent “[Baseline Assessment](#)”⁷⁵ reviews the current status of alternative fuel vehicles in emergency plans, and recommends ways that states may include alternative fueled vehicles in future plans. These recommendations include:



- Enhance emergency operation plans to include strategies such as locating sources of alternative fuels, using alternative fuel fleets to provide emergency response and temporary transportation services, and working with suppliers to increase the supply of alternative fuels when needed.
- Include the above strategies within the ESF-12 structure, and coordinate with agencies responsible for ESF-1 for states that address movement of goods, services, and people.

⁷⁰ For more information, visit the iREV webpage at: <http://www.naseo.org/irev>

⁷¹ National Association of State Energy Officials. Biodiesel Fueled Vehicles and Emergency Response. June 2016. http://www.naseo.org/data/sites/1/documents/publications/iREV_Biodiesel_Case_Study.pdf

⁷² National Association of State Energy Officials. Electric Vehicles and Emergency Response. June 2016. http://www.naseo.org/data/sites/1/documents/publications/iREV_EV_Case_Study.pdf

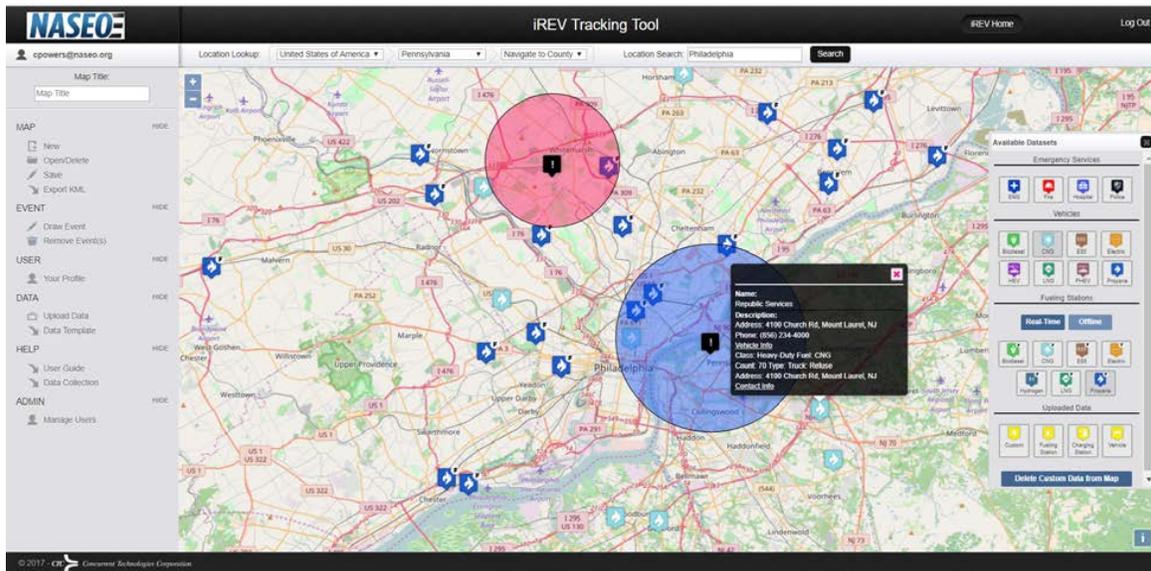
⁷³ National Association of State Energy Officials. Natural Gas Vehicles and Emergency Response. June 2016. http://www.naseo.org/data/sites/1/documents/publications/iREV_Natural_Gas_Case_Study.pdf

⁷⁴ National Association of State Energy Officials. Propane Vehicles and Emergency Response. June 2016. http://www.naseo.org/data/sites/1/documents/publications/iREV_Propane_Case_Study.pdf

⁷⁵ National Association of State Energy Officials. Baseline Assessment: Alternative Fuel Vehicles in State and Municipal Emergency Operations Plans. December 2016. http://www.naseo.org/data/sites/1/documents/publications/iREV_BaselineAssessmentMemo_Final.pdf

- Enhance states' energy assurance plans to include more details on the alternative fuels industry within a state and coordinate ESF-12 response directives with energy assurance plan priorities.

An Alternative Fuel Vehicle and Infrastructure Tracking Tool was developed to help emergency planning entities understand the various alternative fuel vehicle and infrastructure assets and options at their disposal, and optimize planning and investment based on their specific fuel supply, geography, and risk-profile. This [iREV-Tracking Tool](#) (see Graphic 1 below) combines data from the Alternative Fuels Data Center, on-the-ground fleet and infrastructure information relayed through Clean Cities Coalitions, and disaster readiness tools being used at the national level to support critical infrastructure and homeland security.



Description

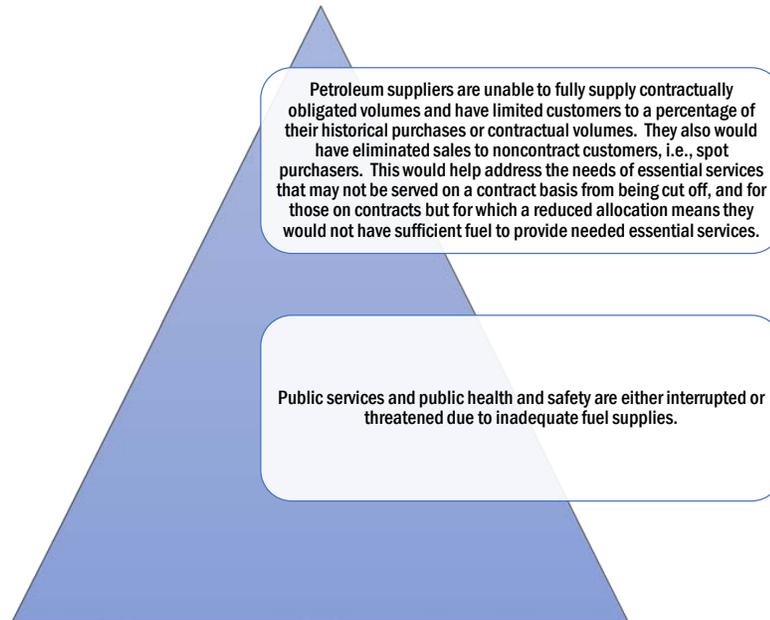
Vehicles that run on alternative fuels such as biodiesel, electricity, natural gas, and propane can help build resilience by diversifying an emergency response fleet. If a storm or other emergency disrupts a state's primary petroleum fuel supply, emergency managers should have a plan to activate fleets that run on alternative fuels to perform essential services. Developing an alternative fuel vehicle plan – or including alternative fuel vehicles in petroleum shortage contingency planning – will strengthen resiliency. This measure would only be effective if the state has sufficient AFV in its fleet to shift essential operation to the use of such vehicles, recognizing that in some instances a shift may not be practical. Notwithstanding, the general approach could also be extended to local governments on a voluntary basis.

Intent of the Program

The alternative fuel vehicle plan is designed to support the availability of transportation services for priority end-users essential to ensure the health, safety, and welfare of the general public. Priority uses would include, for example, those noted in the model petroleum priority users program and/or the state petroleum set-aside program, or any other essential service providers determined by the state or other legal authorities.

Conditions Under Which the Program May Be Used

The alternative fuel vehicle plan could be used after the Governor declared an energy emergency, or after a disaster or emergency has been declared under other authorizing authority as determined by state law. The decision to implement the plan could depend upon whether priority end-users are receiving sufficient amounts of transportation fuels to maintain essential public services. It is suggested that the plan would be implemented when two conditions are widely prevalent:



Legal Authority

Legal authority would be based on a public act that authorizes a governor to initiate this action. This authority exists within most states' emergency authorities in a declared state of emergency or disaster in order to provide services essential to the health, safety, and welfare of the residents of the state. For state agency operations, the governor may also have the authority under an executive directive or order affecting state operations even without an emergency declaration being in effect. The suggested approach is that the governor issues an executive order or directive to require state agencies to use AFV for essential priority services where possible.

Other Legal Issues and Constraints

For state agency operations there may be no legal constraints, nor if the action is directed to local governments and the private sector on a voluntary basis.

Relationship to State's Emergency Management Plan

This action might require legal authority that is typically found under a disaster or energy emergency declaration if it were implemented as a mandatory measure for non-state government organizations. It is prudent to plan coordination through a state's emergency management system, and include this within the responsibility of Emergency Support Function - 12 (Energy). Such responses are usually coordinated through the state emergency operations center and fall under the incident command structure as implemented by the state. This should be described in this section of the plan.

Role of Local Governments

Local governments would be notified of the implementation of this measure by the state. The state should identify the means for outreach to local governments and municipalities, county and other local entities and local emergency managers.

Budget, Staffing and Other Resource Requirements

Most of the cost is in the preplanning required to identify available AFV and fueling locations. Costs would cover all organizational and operational logistics in issuing and implementing the executive order including staffing costs. For example:

Start-up costs:	\$
Operation costs including staffing:	\$
TOTAL	\$

Implementation Procedures

The governor issues an executive order or directive instructing state agencies to maximize their use of AFV to meet essential functions. Local governments that have completed the preplanning would also receive notice asking them to voluntarily implement the program. This section should also include a description of the number of types of AFV available and their fueling locations and priority use and reassignments as may have been identified based on the iREV tool.

Additional Resources

Other resources to consider include:

- [Clean Cities Program](#)⁷⁶
- [National Alternative Fuels Training Consortium](#)⁷⁷
- [Alternative Fuels Data Center](#)⁷⁸
- [5 Ways Alternative Fuels Aid Response to Hurricanes and Natural Disasters](#)⁷⁹
- [Integrating Alternative Fuel Vehicles in Energy Assurance Planning: Information, Examples, and Data Resources to Guide States](#)⁸⁰

⁷⁶ For more information, visit the U.S. Department of Energy's Clean Cities website: <https://cleancities.energy.gov>

⁷⁷ For more information, visit the West Virginia University's National Alternative Fuels Training Consortium website: <http://naftc.wvu.edu>

⁷⁸ For more information, visit the U.S. Department of Energy's Alternative Fuels Data Center website: <https://www.afdc.energy.gov>

⁷⁹ U.S. Department of Energy. 5 Ways Alternative Fuels Aid Response to Hurricanes and Natural Disasters. September 20, 2017.

<https://energy.gov/eere/articles/5-ways-alternative-fuels-aid-response-hurricanes-and-natural-disasters>

⁸⁰ National Association of State Energy Officials. Integrating Alternative Fuel Vehicles in Energy Assurance Planning: Information, Examples, and Data Resources to Guide States. November 2015. <http://www.naseo.org/data/sites/1/documents/publications/AFV-EA%20Report%20FINAL1.pdf>

2. STATE MEASURES REQUIRING FURTHER DETAILS FOR INCLUSION IN PLANS

a) STATE WEIGHT LIMIT WAIVERS FOR PETROLEUM TANKER TRUCKS

The maximum gross weight limit that states must enforce on the federal Interstate Highway System is 80,000 pounds, unless a lower weight is derived from the bridge formula, or a higher weight is grandfathered. Federal law and regulations do not provide any authority to set aside or waive federal weight requirements on the Interstate System. Notably, weight laws on the Interstate System are actually state laws. Federal law simply provides that states must adopt and enforce federal weight laws or lose federal highway funds. Even if federal weight requirements were waived, state laws would still apply. There is one exception. Section 1064 of the National Defense Authorization Act for Fiscal Year 2002 amended 23 U.S.C. 127 to allow the secretary, in consultation with the secretary of Defense, to waive the Interstate System weight limit on I-95 between Augusta and Bangor, Maine, for bulk shipments of jet fuel to the Air National Guard at Bangor International Airport in an emergency.⁸¹

Governors under emergency declaration may have the authority to waive weight limits for petroleum tanker trucks. Such measures would only apply on a state-by-state basis, and should trucks have to go out of state for fuel supplies, they would be subject to weight limits in the states⁸² through which they would need to pass. As a result of these limits, some trucks with larger fuel hauling capacities might be required to only move a partial load, which means less fuel can be moved to locations experiencing shortages. This did occur during the Midwest propane shortages in the winter of 2013-2014.

One reason for which these waivers may not be issued or limited could be aging highway infrastructure. For example, this issue was raised during the response to Hurricane Sandy, during which some states were concerned about the impacts of large loads being hauled over aging bridges, etc.

Past Use by States⁸³

Indiana	Indiana suspended limitations on divisible loads for propane carriers (see Indiana Executive Order 14-02) ⁸⁴ . In addition, the resolution instructed the Indiana Department of Transportation and the Department of Revenue to expedite permit applications and waive any fees for overweight and oversized loads for propane suppliers.
Wisconsin	In Wisconsin, on January 3, 2014, the governor issued Executive Order 130 ⁸⁵ acknowledging the Wisconsin Department of Transportation and the Department of Administration authorized a weight limit relief order for vehicles transporting energy in the state to increase the amount of propane carried on a single trip. On April 26, 2014, the governor issued a second order (see Executive Order 132) ⁸⁶ allowing for adjusted weight limits for propane delivery vehicles.
Texas	While not specifically related to weigh limits, Texas took actions to ease restrictions on out-of-state tanker trucks picking up propane supplies in the state. The governor issued Executive Order 41-3669 ⁸⁷ on January 22, 2014, that stated: <i>"State of Texas is the leading producer of liquefied petroleum gas in the nation, and Texas' liquefied petroleum gas resources and infrastructure allow the state to temporarily assist in alleviating the liquefied petroleum gas shortages in</i>

⁸¹ Federal Highway Administration. Freight Management and Operations. <https://ops.fhwa.dot.gov/freight/sw/faqs/qa.cfm#SO-100>

⁸² Federal Highway Administration. Compilation of Existing State Truck Size and Weight Limit Laws. https://ops.fhwa.dot.gov/freight/policy/rpt_congress/truck_sw_laws/app_a.htm

⁸³ Midwest Governors Association. Propane Toolkit. 2014. <http://www.midwesterngovernors.org/Publications/PropaneToolkit.pdf>

⁸⁴ Indiana Executive Office of the Governor. Executive Order 14-02. Issued on February 5, 2014. <http://www.in.gov/legislative/iac/20140205-IR-GOV140026EOA.xml.pdf>

⁸⁵ Wisconsin Executive Office of the Governor. Executive Order 130. Issued on January 3, 2014.

https://walker.wi.gov/sites/default/files/executive-orders/EO_2014_130.pdf

⁸⁶ Wisconsin Executive Office of the Governor. Executive Order 132. Issued on April 26, 2014.

https://walker.wi.gov/sites/default/files/executive-orders/EO_2014_132.pdf

⁸⁷ Texas Executive Office of the Governor. Executive Order 41-3669. Issued on January 22, 2014.

<http://www.lrl.state.tx.us/scanned/govdocs/Rick%20Perry/2014/proc012214.pdf>

other states." And, "Pursuant to this proclamation and Section 13.083(a) of the Texas Natural Resources Code, the State of Texas waives Texas licensing, permitting, and certification requirements regarding liquefied petroleum gas trucks and operators. This waiver applies only to liquefied petroleum gas trucks and operators meeting all certification, permitting, and licensing requirements of the federal government and another state whose governor has declared or declares a liquefied petroleum gas emergency."

b) RETAIL GAS STATION PRIORITIES FOR ESSENTIAL SERVICES

The priority users program for bulk purchasers and the state petroleum set-aside program are designed to assure that essential public service needs are met for bulk purchasers of fuel who maintain their own storage and distribution facilities. However, in recent years some state and local governments have become more reliant, or even exclusively rely, on retail gas stations to meet their needs. This measure has been included to begin the discussion and planning of how to assure that essential public service needs supplied by retail gas stations can be met during a serious fuel shortage.

In shortages of lesser severity where noncontract customers are still able to purchase fuel on the spot market and contractual customers are not seeing a serious reduction in contract volumes, there may be sufficient fuel in the system to make ad hoc voluntary arrangements to meet the fuel needs of the local community working through the state emergency operations center. A more systematic program is one that would be designed to deal with widespread, more severe, and potentially long-lasting types of events.

To date there have been instances where informal arrangements have been made at a local level to reserve a limited number of retail gas pumps to service police, fire, or emergency medical services or other critical needs of the community.

It is suggested that states might wish to explore this in greater detail to determine if some more formal mechanisms should be put into place such as the identification of potential retail gas stations that could be used in this way as fueling locations for select priority users. There have been discussions by some states to explore whether large commercial retailers that also have gas stations might serve as designated locations under some type of memorandum of understanding. This could be coupled with the priority users program for bulk purchasers to guarantee additional supplies for these locations for essential services. Ideally these retail locations would either have emergency backup power generation or at a minimum be wired to accept generators so they could be used during power outages. This could be linked to another initiative where states may have taken actions to either provide generators or transfer switches, and then these locations would be prime candidates for designation of pumps reserved for priority users.

Fuel provided from these designated pumps would be sold at the prevailing retail price available to other customers. If significant lines developed at retail stations, these pumps would also help eliminate the wait time unless those lines had already been addressed by the implementation of an odd-even minimum purchase plan.

Implementation of this approach could be done as a state initiative as part of its energy assurance planning, as a joint state and local government coordinated approach, or at the initiation of local government where a large number of local jurisdictions in a geographic region all rely on retail gas stations to supply their essential vehicles. A variation of this approach has also been used in some instances where vehicle-to-vehicle fueling via tank trucks has occurred or when locations other than retail gas stations were used (such as private refueling locations which some state governments have or by establishing new fueling locations using portable skid tanks or tanker trucks). This contingency should

be given consideration by state government and as part of any local energy assurance plan. It may be considered at the local level as a continuity of operations issue and addressed as part of that planning process.

c) EMERGENCY GENERATORS AND TRANSFER SWITCHES FOR RETAIL GAS STATIONS⁸⁸

Several states have explored options for assuring there is adequate gasoline supply along evacuation routes and for response and recovery from power outages. The most common cause of evacuation has been hurricanes. There may be other instances where evacuations may be necessary, particularly in earthquakes where the damage may be so severe that a large number of individuals may need to be evacuated from the affected area. There have also been discussions about the impacts of a long-term power outage that could be caused through malicious physical or cyberattacks.

The options examined typically looked at either prewiring gas stations to be able to accept generators if there is a power outage or programs that would install on-site generators or have a cache of generators available to deploy to select retail locations. The following examines the approaches of several different states that could be considered particularly pertinent to states that are prone to hurricanes and that would also provide greater resilience for gasoline and diesel fuel supplies in a longer-term power outage occurring in any state.

The Northeast suffered major damage when Superstorm Sandy made landfall on October 29, 2012. Although much of New England was affected, New York and New Jersey sustained the most severe and devastating damage.⁸⁹ Subsequently, New York has undertaken a number of efforts to improve the resiliency of its energy infrastructure in response to lessons learned from Sandy. According to the Superstorm Sandy After-Action Report (AAR)⁹⁰ completed by New York City officials in May 2013, the storm caused one of the most serious shortages of fuel the city had ever experienced.⁹¹

This was primarily a result of regional storm damage and electric power loss to Mid-Atlantic energy infrastructure, which led to difficulties in obtaining fuel for critical vehicles needed to support recovery efforts for consumers outside of the immediate impact area. In immediate response to the fuel shortage, the city of New York and several federal agencies set up temporary fueling locations for city vehicles, as well those used by critical personnel. Additional complications to the fuel supply issue were associated with the regional lack of electricity and/or product flow to local gas stations, which were critical to support citizens as they returned to work and their everyday lives.

⁸⁸ A portion of this was abstracted from “State Energy Resiliency Framework” Global Securities Science Division, Argonne National Laboratory prepared by J. Phillips, M. Finster, J. Pillon, F. Petit, and J. Trail. December 2016.

⁸⁹ U.S. Department of Commerce. Economic Impact of Hurricane Sandy: Potential Economic Activity Lost and Gained in New Jersey and New York. September 2013. <http://www.esa.doc.gov/sites/default/files/sandyfinal101713.pdf>

⁹⁰ The City of New York City Office of the Mayor. Hurricane Sandy After Action: Report and Recommendations to Mayor Michael R. Bloomberg. May 2013. http://www.nyc.gov/html/recovery/downloads/pdf/sandy_aar_5.2.13.pdf

⁹¹ Katie DeLong and Fox6Now Milwaukee. After Sandy, Gas Lines Stretch for Miles in New York, New Jersey. November 1, 2012. <http://fox6now.com/2012/11/01/after-sandy-gas-lines-stretch-for-miles-in-new-york-new-jersey/>

New York

The state of New York as part of its Fuel NY program established a backup generation program for critical gas stations.^{92 93 94} Although some gas stations and terminals were physically damaged due to Superstorm Sandy's storm surge and disruptions in the supply chain, the lack of power prevented numerous other gas stations from providing gasoline, even if they had it available on the site in underground storage tanks. The state of New York passed legislation in May 2013 that is described in Article 16 of the Agriculture and Markets Law Weights and Measures, Section 192-h. The legislation outlined the following criteria for participation by stations located in the Downstate region, which is defined as: (1) Long Island region that includes Nassau and Suffolk counties; (2) Lower Mid-Hudson region that includes Rockland and Westchester counties; and (3) New York City region that includes Bronx, Kings, New York, Queens and Richmond counties:⁹⁵

1. All gas stations within a half-mile of highway exits and hurricane evacuation routes will be required to have a transfer switch prewired by April 1, 2014.

2. These gas stations will be required to install and deploy a generator within 24 hours of losing electric power during a fuel shortage.

3. All gas stations that are part of a chain must have transfer switches installed at 30% of their stations by August 1, 2015.

In June 2016 Governor Cuomo announced: “The \$12 million Permanent Generator Initiative will make grants available on a competitive basis for strategic gas stations to offset costs of purchasing and installing a permanent emergency generator. It is estimated the funding will support installation of permanent generators at up to 200 stations. The initiative uses funds from the Federal Emergency Management Agency Hazard Mitigation Grant Program. The state of New York has committed approximately \$12 million in support of this part of the Fuel NY program, which includes grants of up to \$13,000 per gas station to assist with required upgrades. Under Fuel NY, the state also has a system to deploy portable emergency generators to downstate stations that do not have permanent emergency generators in New York City, Long Island, and Rockland and Westchester counties.”⁹⁶

New Jersey

The \$7 million Retail Fuel Station (RFS) program allows retail fuel stations faster and more reliable access to backup power during an energy emergency. This is in addition to all 22 gas stations located on the Garden State Parkway, the New Jersey Turnpike, and the Atlantic City Expressway that were already equipped with backup power for outages.⁹⁷

⁹² New York State Energy Research and Development Authority. New York State Launches New Initiatives as Part of Fuel NY Program. July 14, 2014. <https://stormrecovery.ny.gov/news-announcements/new-york-state-launches-new-initiatives-part-fuel-ny-program>

⁹³ New York Executive Office of the Governor. Governor Cuomo Proposes Legislation to Protect New Yorkers from Gas Shortages in Natural Disasters. February 20, 2013. <https://www.governor.ny.gov/news/governor-cuomo-proposes-legislation-protect-new-yorkers-gas-shortages-natural-disasters>

⁹⁴ State of New York. New York. Article 16 of the Agriculture and Markets Law Weights and Measures, Section 192-h. Alternate Generated Power Source at Retail Gasoline Outlets”. May 30, 2013. <https://stormrecovery.ny.gov/sites/default/files/documents/Article-16-192-h.pdf>

⁹⁵ Ibid.

⁹⁶ New York Executive Office of the Governor. Governor Cuomo Announces \$12 Million for Downstate Gas Station Resiliency and Storm Hardening. June 13, 2016. <https://www.governor.ny.gov/news/governor-cuomo-announces-12-million-downstate-gas-station-resiliency-and-storm-hardening>

⁹⁷ New Jersey Executive Office of the Governor. Christie Administration Offers Grants to Enhance Fuel Station Access to Backup Power. October 21, 2013. <http://www.state.nj.us/governor/news/news/552013/approved/20131021b.html>

Under revised guidelines issued in January 2015, all retail fuel stations statewide with a minimum gasoline capacity of 18,000 gallons were eligible to apply. Previously, the program was limited to those in close proximity to evacuation routes with minimum gasoline storage capacity of 30,000 gallons. The voluntary program is funded through the federal Hazard Mitigation Grant Program. Under RFS, 127 stations are fully approved for grant funding of \$3.95 million. To date, of the 127 approved stations, 41 have installed permanent generators and 74 have installed “quick connect” devices, which provide connection points for mobile generators.⁹⁸

Florida

A law⁹⁹ passed in Florida in 2006 had several requirements for emergency generators and/or transfer switches at motor fuel terminals and at some retail gas stations to be installed by June 2007. There are some exceptions criteria specified in the law. Following is a summary of the key provisions.

SUMMARY I. KEY PROVISIONS OF FLORIDA LAW

- For motor fuel terminals facilities, they must be capable of operating their distribution loading racks using an alternate generated power source for a minimum of 72 hours. The facility must have an alternate generated power source available for operation no later than 36 hours after a major disaster. In addition, terminals must keep a written statement attesting to periodic testing and ensured operational capacity of the equipment.
- Retail gas stations located within one-half mile proximate to an interstate highway or state or federally designated evacuation route must be prewired with an appropriate transfer switch and be capable of operating all fuel pumps, dispensing equipment, life safety systems, and payment-acceptance equipment using an alternate generated power source, provided that they meet the following criteria:
 - A motor fuel retail outlet located in a county having a population of 300,000 or more that has 16 or more fueling positions.
 - A motor fuel retail outlet located in a county having a population of 100,000 or more, but fewer than 300,000, that has 12 or more fueling positions.
 - A motor fuel retail outlet located in a county having a population of fewer than 100,000 that has eight or more fueling positions.
- Each retail outlet must keep a written statement attesting to the periodic testing of and ensured operational capacity of the equipment. The required documents must be made available, upon request, to the Division of Emergency Management and the director of the county emergency management agency.
- Owners of 10 or more motor fuel retail outlets located within a single county need to maintain at least one portable generator that is capable of providing alternate generated power for every 10 outlets. Owners that have more than 10 outlets are required to have additional generators. Each portable generator must be stored within Florida, or may be stored in another state if located within 250 miles of Florida, and must be available for use in an affected location within 24 hours after a disaster.

This Florida law does not appear to have penalties for noncompliance and while many retail gas stations may be in compliance there may be others that are not, which would reduce the actual number of stations that have this backup capability.

⁹⁸ New Jersey Executive Office of the Governor. Four Years After Sandy: A Stronger New Jersey New Jersey, October 28, 2016. <http://www.state.nj.us/governor/news/news/552016/approved/20161028a.html>

⁹⁹ Florida Statutes. Title XXXIII. Chapter 526.143. http://www.leg.state.fl.us/statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=0500-0599/0526/Sections/0526.143.html

Other states that have developed programs to provide for transfer switches or both transfer switches and generators for retail gas stations for use in power outages include Maryland and Wisconsin, and there may be others.

d) CONTRACTUAL PROVISIONS FOR FUEL SUPPLIES IN AN EMERGENCY

The American Petroleum Institute's Oil and Natural Gas Industry Preparedness Handbook¹⁰⁰ states: "Governments, particularly at the State and local levels, should be provided information and education about purchasing fuels and fuel contracts. Stakeholders are often unaware of what is needed to purchase fuel, which may already have contracts in place for available supplies, and what laws and regulations apply to purchases in their States." For example, the National Association of State Energy Officials has identified one of the critical issues that must be considered in advance of an emergency:

"Experience from several states indicates that supply may be sustained during shortages through careful attention to how fuel is purchased and fuel purchasing contracts. Some large consumers, including some public entities with critical petroleum fuel using agencies such as police, fire, and public transit, may have opted to reduce the cost of fuel through spot market-based contracts or by contracting for fuel from spot-market dependent vendors. However, spot-market fuel availability diminishes rapidly during a shortage. This is because [normally] fuel supplies that are available in excess of that needed to meet contractual obligations are treated as a surplus and sold at a discount. In a shortage, contractual needs are served first and there is little or no surplus. Hence, vendors who rely solely on the spot market may be unable to supply critical needs customers during a shortage."¹⁰¹

It is important to highlight that these practices and regulations can vary greatly from state to state and by municipality, and it is critical that decision makers have the information about how supply is secured in advance of an event.

While it is acknowledged the federal government may have the authority under certain circumstances to acquire and redistribute certain resources, it is critically important that all parties understand contracting processes and that federal intervention is used only as a last resort in emergency situations. It is also important for governments at all levels to understand that 95 percent of retail gas stations are independently owned and operated; that is, they are not owned by refiners. Further, nearly 60 percent of all stations are independently owned small businesses. This means that during an event, identifying power status, supply availability, and operational capability across such a broad and diverse ownership pool will be extremely challenging. Therefore, governments should focus on system-level restoration to ensure power and supplies are available to those who can receive them.

Shopping for fuel during an emergency when prices are volatile, and fuel is in short supply can be very difficult. Prior to any disruption, states may wish to consider training critical user organizations about the differences in spot and contractual purchases and the issues and techniques that can be used to balance price versus security of supply. Before undertaking such training, the following may be considered:

¹⁰⁰ American Petroleum Institute. Oil and Natural Gas Industry Preparedness Handbook. April 2016. <http://www.api.org/~media/Files/Policy/Safety/ONG-Industry-Preparedness-Handbook-v2.pdf>

¹⁰¹ National Association of State Energy Officials. Petroleum Fuel Set-Aside and Petroleum Shortage Supply Management: Options for States. September 2012. http://www.naseo.org/data/sites/1/documents/publications/Petroleum_Shortage_Supply_Management.pdf

Educational Program

In order to effect long-range changes in procurement practices, states may wish to undertake information dissemination and training in coordination with professional buyers and petroleum market entities. Here are some steps to consider when implementing information sharing and training:

1. Contact state and local procurement experts and discuss the aspects of how their agencies contract for fuel.
2. Determine what risk analyses are used to determine how much fuel to purchase at lower (spot-market) cost versus how much to secure for emergencies at a probable higher cost.
3. Meet with the attorney general and/or other relevant counsel to discuss legal issues in preparation for emergencies.
4. Risk analysis information may be obtained from economists at state and local universities or through private sector vendors who specialize in risk analysis.
5. Determine what state and local laws pertain to government agency procurement or may affect private sector procurement.
6. Meet with petroleum association representatives to ascertain current practices among state jobbers and retail outlets. This would be a more general discussion, as compliance with anti-trust requirements (both state and federal), means specific pricing policies of specific companies cannot be discussed. Ascertain whether or not the state petroleum associations support a variable purchase contracting mix containing both lower cost and secure product pricing. In a shortage, prices typically increase, and states should clearly understand the relevant laws and policies and their application. Price increases during a disaster may be subject to certain provisions of state law as well.
7. Contact petroleum suppliers to determine if they have special programs designed to provide for fuels supplies in the event of emergencies.
8. Work with interested parties in state and local government, as well as critical end users, to determine what contracting suggestions best suit the fuel purchasing needs of the critical end users in the state. States may also have consumer protection laws that are relevant and in some states price increases during disasters may be subject to other provisions of state law as well.
9. Develop a prototype purchase program and pilot it with several critical end-use organizations.
10. Critique the outcome of the pilot program and adjust the purchase program in accordance with lessons learned from the analysis.
11. Prepare a seminar to promote the tested and adjusted purchase program to a wider group of critical end users.
12. Ascertain participation and obtain data from new and ongoing (pilot program) participants.

Relatively Short-Term Fuel Procurement

Based on results from the pilot program and feedback from voluntary participants, state officials may wish to work with state and local procurement officials to develop statewide petroleum fuel contract instruments that can be used by public sector critical end users. Steps may include:

- Working with private sector associations to make state/local contract instruments available for their modification-to-suit and publication to members.
- Developing a purchase program for coordinated petroleum products acquisition in the face of, or in reaction to, potential shortages.
- Three examples are noted below to illustrate this suggestion. These provide a middle ground between seasonal fuel purchasing contracts and emergency actions taken to assist critical end users during a crisis.

These three examples utilize a team management approach to abet “last minute” petroleum fuel acquisition before or during an emergency. The examples noted here are from Texas, Florida, and City of Chicago:

STATE OF TEXAS	<p>The threat of hurricanes in coastal areas sometimes requires large-scale evacuations. As a result, retail outlets along evacuation routes require sufficient fuel supplies to meet a demand surge. To address this need, the state formed a state fuel team under the state emergency management plan. This team is composed of nonprofit trade associations and works with the state emergency operations center before a hurricane makes landfall to coordinate deliveries of additional fuel along evacuation routes. The state fuel team also assists with damage assessments after the hurricane has passed to check on refineries, pipelines, terminals, and gas stations to determine the level of damage and the level of effort required to safely return to normal operations.</p>
STATE OF FLORIDA ¹⁰²	<p>Florida has considerable experience with hurricanes. The potential and actual emergency fuel acquisition efforts in Florida are coordinated through the state emergency operations center. Upon threat of a storm, the state emergency operations center assesses the petroleum fuel supply and coordinates with petroleum suppliers to assure that essential needs are met. The Florida Division of Emergency Management has designated an emergency coordinating officer (ECO) who is responsible for monitoring the prices and availability of petroleum products. In the event of a shortage, the ECO will consult with various state government departments as part of their ESF-12 duties. These departments include:</p> <ul style="list-style-type: none"> • Office of the Governor • Environmental Protection • Transportation • Management Services • Agriculture <p>The ECO also contacts the Florida Petroleum Council, the Florida Petroleum Marketers and Convenience Store Association, petroleum suppliers, and other industry leaders. Upon determination that a shortage is anticipated or exists, an executive order of the governor can be executed that works through the state's purchase order process to procure additional supplies from emergency fuel providers. This is defined under contract provisions for specific deliverables and performance objectives to provide a minimum of 100,000 gallons of bulk fuel daily to city and county sites designated by ESF-12 (Fuels) under mutually acceptable terms and conditions.</p>

¹⁰² Reviewed and updated by the Florida Division of Emergency Management. September 2017.

CITY OF CHICAGO	<p>The city of Chicago has included the following provisions in gasoline supply contracts. The same provisions are in diesel fuel contracts where the reference to E-10 and E-85 are replaced by the word “diesel fuel.”¹⁰³</p> <p>11.16. INVENTORY LEAD TIME <i>The Contractor will maintain an Inventory of sufficient diversity and quantity to ensure the delivery of any E-10 and E-85 Gasoline listed in the Proposal, which is ordered by the City within 24 hours after receipt of a City department's order. In lieu of the inventory, the Contractor must be able to arrange such prompt delivery. Repeated failures of the Contractor to meet the above stated delivery requirement may be used by the City as grounds for the termination of this contract, and may further affect the Contractor's eligibility for future contract awards.</i></p> <p>11.17. PRIORITY SERVICE <i>Notwithstanding any other provision of this contract, except where expressly limited by applicable law or regulation, the City's orders for the purchase of E-10 and E-85 Gasoline must take precedence over those of any other customer. In an emergency situation, or where Contractor's supply of E-10 and E-85 Gasoline is low, Contractor must fill the City's order before filling the orders of any of its other customers. If the Contractor is aware that his supplies are running low, the Contractor must notify the City immediately upon receipt of such knowledge and must allow the City the right to place an order before filling the orders of its other customers.</i></p> <p>11.18. EXCEPTIONS <i>Any deviations from these specifications must be noted on the Proposal Page or pages attached thereto, with the exact nature of the change outlined in sufficient detail. The reason for which deviations were made should also follow if not self-explanatory. Failure of a bidder to comply with the terms of this paragraph may be cause for rejection. The City reserves the right to disqualify bids which do not completely meet outlined specifications. The impact of exceptions to the specifications will be evaluated by the City in determining its need.</i></p>
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e) EXPANDED STATE FUEL STORAGE AND STRATEGIC RESERVES

A number of states have bulk fuel storage locations that are used to store petroleum products to refuel state vehicles. In some states, this may be managed at a departmental level (e.g., by departments of transportation, highways, or public safety). A government agency procures the fuel and it is stored in tanks often similar to those found in retail outlets. For some operations refueling may be done at retail gas stations.

In many states, local government fleets may have contracts with local retail gas stations where their fleets refuel. Both bulk fuel storage locations and wholesale or retail purchase arrangements allow government agencies greater flexibility to access fuel needed for critical agency work.

Where government-owned fuel storage exists, it may be possible to add additional storage over time, rather than create storage at new locations. If new facilities are being planned for construction where fuel storage would be appropriate, there is an opportunity to consider the size of storage and whether to increase the capacity of the storage for emergency needs. It can be assumed that most existing locations have met federal and state environmental requirements. However, it is always prudent to review such requirements for potential changes that occur on a regular basis. Additional permitting may be required but not require extensive determinations depending on the location and potential reaction from nearby citizens.

¹⁰³ Contract provisions have been in effect since before September 2012 and were still in effect as of August 2017 as verified by the city's Deputy Commissioner for Energy Procurement and Management within the Department of Fleet and Facility Management.

For states that may wish to explore expanding bulk storage at government owned storage facilities the following factors should be considered:

- Meet and coordinate with state and local agencies that already have storage to determine existing volumes and protocols and explain the need for expansion.
- Determine the potential volumes that might be needed for critical end users during a shortage.
- Relate potential expansion (i.e., size or volume of new tanks) to existing agency and potential priority user requirements.
- Determine current usage per day for all vehicles that are normally fueled from this fuel storage location, and the subset that are priority vehicles essential for public safety under normal operations.
 - This can then be divided by the existing storage capacity to determine the number of days of supply, assuming the tank is full.
 - Determine the number of days between deliveries to refill the tank and the quantity that is typically purchased on average during normal operations.
 - Determine the quantity of fuel that is available in the tank when it is refilled to ascertain the normal minimum operating reserve.
 - Make a decision on how much additional storage capacity to add to increase the minimum reserve levels and how many days of supply it will provide. Clearly, this is a decision that will also be based on budgetary considerations.
- Ascertain the willingness of the fuel-storing agency to expand storage capacity.
 - Consider fuel-storing costs associated with expansion, maintenance, oversight, potential environmental compliance, capital costs, and insurance, plus unexpected factors with fiscal implications.
 - Use of existing storage location, rental, or other use of remote (e.g., non-agency) storage.
 - Investigate various storage options and costs such as:
 - Above ground storage
 - Underground storage
 - Replacement of existing tanks with larger tanks
 - Tank vendor involvement such as installation, maintenance and removal
 - Insurance needs
 - Usage protocols to turn over stocks to maintain fresh supply
 - Usage protocols to ascertain conditions governing use:
 - Use in normal use
 - Use during shortage
 - User refill priorities under both conditions
 - Work together to seek solutions that meet agency needs in terms of risk and cost.
 - A substantial storage tank market already exists for varying tanks to meet several levels of storage needs. There are commercially available standard tanks for such fuels as diesel, heating oil, and motor gasoline, as well as liquefied petroleum gas, ethanol, and bio-diesel, among others. Tanks can be ordered in

various volumes from a few days to months of supply, or they can be custom built. Such companies can easily be searched on the Internet and followed up with inquiries to storage company sales departments.

- Other areas that should be researched include:
 - Environmental regulations
 - Jurisdictional regulations
 - Fire and safety issues
 - Waste management
 - Volumetric calculations
- Work with appropriate private sector vendors to determine viable alternatives such as rental or temporary seasonal storage and all aspects of access and withdrawal of fuel as needed.

All of the examples included above are intended to be suggestive, not prescriptive. They are included to illustrate that there is nothing out of the ordinary about examining the need for new or expanded emergency fuel storage. There is a large existing industry available to assist these efforts, and regulations and other jurisdictional requirements are readily available for examination. Adding petroleum product storage will take time and require additional investigation as state and local authorities are consulted and included in the planning, and possible implementation, process.

State Strategic Gasoline and Fuel Reserves¹⁰⁴

Only one state has developed strategic reserves of gasoline and diesel fuel. This is New York, which did so as part of its Fuel NY initiative. These reserves were developed following Superstorm Sandy, which in October 2012 caused power outages that shut down retail gas stations in the affected areas and a number of critical, large capacity pipelines and petroleum supply terminals in the New York/New Jersey area. These fuel supply components were either without power and/or flooded by the storm surge. In addition, local refiners were temporarily shut down, which further limited available supplies of gasoline and diesel fuel.

The Superstorm Sandy AAR and DOE's Quadrennial Energy Review¹⁰⁵ recommended the creation of a fuel plan to preemptively plan for shortages that may arise due to severe weather or other emergencies. In response to the storms and in anticipation of future severe weather events, and other emergencies, New York State started Fuel NY. One of the major initiatives of Fuel NY was to create strategic fuel reserves. New York maintains the nation's first state-based strategic gasoline reserve to respond to future supply gaps during severe weather events and emergencies.

Two reserves have been established: the strategic gasoline reserve in the downstate New York area and the strategic fuel reserve upstate. The two reserves can supply about 5.3 million gallons of gasoline and diesel fuel in response to a fuel emergency.

The New York Strategic Gasoline Reserve of 2.5 million gallons in downstate New York is held by NIC Holding Corp. and Northville Industries Corp. and located at the Northville Terminal in East Setauket, New York, and distribution facility in Holtsville, New York. The New York State Energy Research and Development Authority is responsible for all sales and any allocations of the reserve. Upon declaration

¹⁰⁴ A portion of this was abstracted from "State Energy Resiliency Framework" Global Securities Science Division, Argonne National Laboratory prepared by J. Phillips, M. Finster, J. Pillon, F. Petit, and J. Trail. December 2016 ANL/GSS-16/4
<https://energy.gov/sites/prod/files/2017/01/f34/State%20Energy%20Resilience%20Framework.pdf>

¹⁰⁵ U.S. Department of Energy. Quadrennial Energy Review: Energy Transmission, Storage, and Distribution Infrastructure. April 2015.
https://www.energy.gov/sites/prod/files/2015/07/f24/QER%20Full%20Report_TS%26D%20April%202015_0.pdf

by New York State of an energy supply emergency, fuel from the reserve may be sold to wholesale fuel distributors to provide fuel for emergency responders, municipal and other government customers, and retail outlets as determined for the emergency event. While designed and targeted for use on Long Island, fuel from the strategic gasoline reserve may become available to other parts of New York State, according to needs and circumstances.¹⁰⁶ According to an article posted by NYSERDA under the Office of the Governor on July 14, 2014, the state strategic gasoline reserve is operational.

The New York Strategic Fuel Reserve (SFR) located in upstate New York is administered by NYSERDA. The SFR holds approximately 1.4 million gallons of gasoline and 1.4 million gallons of ultra-low sulfur diesel fuel. It will also be used to meet the needs of first responders during a declared emergency in the event that their own fuel supplies are disrupted. The fuel reserves are managed by Buckeye Terminals, LLC. Suppliers can pre-register to facilitate distribution of fuel to first responders upon declaration of an emergency and release of the strategic fuel reserve.

The six key terminals in upstate New York which will be used to store the fuel are located in the cities of Rensselaer, Brewerton, Rochester, Marcy, Vestal, and Buffalo.¹⁰⁷ Again depending on the nature and location of fuel shortages, these reserves may be made available to other parts of New York State.

This is a relatively expensive contingency measure; however, in a fuel emergency it is a dedicated resource and will be available. The distributed nature of the supply points for the two reserves also makes this supply more reliable and less susceptible to events that could impact the ability to tap into the reserves. The Strategic Gasoline Reserve cost about \$10 million when it was established in October 2013, and the Upstate Strategic Fuel Reserve Program was established in October 2014 at a cost of \$10 million, with funding provided by the New York Power Authority.¹⁰⁸

¹⁰⁶ New York Executive Office of the Governor. Governor Cuomo Launches First-Ever Strategic Gasoline Reserve to Prevent Supply gaps During Emergencies. October 26, 2013. <http://www.governor.ny.gov/news/governor-cuomo-launches-first-ever-strategic-gasoline-reserve-prevent-supply-gaps-during>

¹⁰⁷ New York Executive Office of Governor. Governor Cuomo Announces Strategic Fuel Reserve in Upstate New York to Help Prepare for Future Severe Storms, Possible Fuel Emergencies. October 29, 2014. <http://www.governor.ny.gov/news/governor-cuomo-announces-strategic-fuel-reserve-upstate-new-york-help-prepare-future-severe>

¹⁰⁸ Ibid.

3. FEDERAL/STATE DETAILED PROGRAMS

a) WAIVERS OF FEDERAL MOTOR CARRIER SAFETY REGULATIONS (DRIVER HOURS OF SERVICE)

Summary

This has been one of the most commonly used state actions to respond to regional petroleum product shortages. Emergency action under the Federal Motor Carrier Safety Regulations (FMCSR) is automatically triggered under a declared emergency (as defined in the FMCSR). A fuel shortage could be caused by the unanticipated shutdown of a refinery, a disruption to a pipeline, a severe power outage, or a similar event. Although not all disasters are necessarily energy emergencies, distribution of fuel may be prioritized to the impacted areas to facilitate recovery efforts.

A declaration of emergency under the FMCSR, which can be declared by the president of the United States, the governor of the impacted state, or by the Federal Motor Carrier Safety Administration (FMCSA) field administrator for the geographical area in which the emergency has occurred, initiates complete exemption from all of the safety regulations contained under 49 CFR Parts 390-399, which includes the limitation of drivers' hours of service.

For more information see the following resources:

- NASEO's [Guidance for States on Relief from Federal Motor Carrier Safety Regulations in an Energy Emergency](#)¹⁰⁹
This guidance was prepared by NASEO with input from the FMCSA.
- U.S. Department of Energy's [Energy Waiver Library](#)¹¹⁰
- Federal Motor Carrier Safety Administration's [Emergency Declarations, Waivers, Exemptions and Permits](#)¹¹¹
FMCSA has established a toll-free hotline at 877.831.2250 for inquiries pertaining to FMCSA regulations during a declared disaster.

Description

Driver hours of service limits are put in place by the U.S. Department of Transportation's FMCSA and are designed to protect truck drivers and the public from the hazards of overwork and fatigue. In periods of extreme weather where the delivery of petroleum products (e.g., propane and heating oil) can be hampered due to impassable roads¹¹², where there is an uncharacteristic increase in demand or constraints on supplies, motor carrier drivers may not have sufficient hours of service in order to deliver sufficient fuel to protect the well-being of residents and limit the effects of an energy emergency. Petroleum supply interruptions may also require drivers to travel greater distances to acquire fuel and in addition, there may be excessive delays at fuel terminals, when a large number of tanker trucks are in line waiting to load fuel. In either of these examples, waivers of the safety regulations under which

¹⁰⁹ National Association of State Energy Officials. Guidance for States on Relief from Federal Motor Carrier Safety Regulations in an Energy Emergency. November 2014. <https://www.naseo.org/Data/Sites/1/fmcsa-regulations-relief-guidance-11-03-2014.pdf>

¹¹⁰ U.S. Department of Energy. Energy Waiver Library. https://energy.gov/oe/services/energy-assurance/response-and-restoration/energy-waiver-library?utm_source=2Q%202017%20Energy%20Security%20Committee%20Call%20%2806202017%29&utm_campaign=Energy%20Security%20Call%20Agenda%20120516&utm_medium=email#FMCSA

¹¹¹ Federal Motor Carrier Safety Administration. Emergency Declarations, Waivers, Exemptions and Permits. <https://www.fmcsa.dot.gov/emergency>

¹¹² In areas where customers are without access to natural gas or decided not to use natural gas, residential space heating fuels such as propane and heating oil (Number 2 fuel oil) must be delivered by truck.

these driver-hour limitations are prescribed may be appropriate to allow drivers more time to pick up and deliver fuel. This action should be taken in coordination with the agency that is responsible for the enforcement of state motor carrier laws and regulations, usually the state Department of Transportation.

Intent of the Measure

Relief from FMCSA safety regulations remove the limits on the number of hours a driver can operate, along with other safety rules to facilitate fuel deliveries during an emergency. Even with waivers in place, drivers should still follow all safety rules as best they can and try to operate within normal driver hours if supply conditions for their customers permit.

Conditions Under Which the Measure May Be Used

Waivers of the safety rules including the limits on hours of service are only considered under conditions in which problems cover a wide geographic area, often affecting a number of states, and are caused by factors that exceed the reasonable bounds of the industry's ability to respond. It should be noted that in addition to waiving hours of service, the Federal Motor Carrier Safety Regulations (390.23) waives compliance with most safety regulations when an emergency is declared. According to 49 CFR 390.5, an emergency means any storm (e.g., thunderstorm, windstorm, snowstorm, ice storm), earthquake, explosion, blackout, or other occurrence (natural or man-made) that interrupts the delivery of essential services and supplies (such as food and fuel) or otherwise immediately threatens human life or public welfare.

Under such circumstances, the FMCSA field administrator may also declare an emergency if there is a regional crisis that justifies such regulatory relief. In terms of hours of service waivers, this exemption cannot exceed either the duration of the motor carrier's or driver's direct assistance in providing emergency relief to the affected area, 30 days from the date of the initial declaration of the emergency, or the exemption from the regulations by the FMCSA field administrator. The lesser of these three conditions determines the length of the waiver.

Waivers of the safety regulations including hours of service waivers automatically go into effect if an emergency has been declared by the governor or by their authorized representatives having authority to declare emergencies. Under a presidential declaration it would be presumed that one or more governors would have already declared an emergency, which would have automatically triggered the waiver. In this instance, permission from the FMCSA field administrator would not be needed; however, it can often be useful to discuss this action with either an FMCSA state point of contact or the regional FMCSA administrator.

Factors to Consider When Deciding to Implement Waivers of FMCSA Safety Rule

One does not necessarily need to answer all of the following questions before making a decision, but these are some of the questions that might help in making a determination when there is sufficient evidence to warrant this action. If the request is coming from petroleum suppliers, it is incumbent on them to make a case for this action and provide sufficient information upon which to make a decision. A number of these factors reflect what could be described as a discussion guide for speaking with petroleum suppliers when evaluating the severity of the supply problem.

Weather Factors	
1.	Is snow or ice sufficiently severe that full recovery of highways and primary roads will take more than a few days? (The state Department of Transportation and/or county road commissions may be able to provide this information.)
2.	Is snow or ice sufficiently severe that full recovery of secondary and rural roads will take up to a week? (Check with the county road commission or county emergency management coordinators.)

3. Is cold weather sufficiently severe that fuel use by significant numbers of households will outstrip the ability of local retailers (operating under normal hours of service limitations) to replenish critically-low home fuel tanks?
4. Is cold weather sufficiently severe that fuel transporters (operated by transporters, jobbers or retailers under normal hour of service limitations) are unable to replenish the supplies of retail outlets in the face of increased consumer demand?
5. Have the heating degree days substantially exceeded normal for a week or longer period?
6. Have any counties been declared under a local or state emergency of any sort? Under a state declaration, even if limited to one or more counties, the waivers are already legally in effect as recognized by the FMCSA.

Multistate Regional Weather Consideration

1. Regional emergencies should not be requested solely because of severe weather; the severe weather must be shown to have a significant and prolonged effect on the supply system that threatens human health, safety, or public welfare.
2. The fact that one or two retailers or distributors are having supply problems should not alone be grounds for requesting a regional emergency. Retailers that mismanage supplies or that make no extraordinary efforts to obtain extra supplies or contract with additional drivers should not normally be seen as grounds for granting a waiver.
3. The fact that a limited number of “will-call” customers¹¹³ are on the verge of running out of fuel because they have not called sufficiently in advance for a delivery (e.g., calling one day before they are likely to run out) should not be grounds for a regional emergency. The inability of retailers to fully supply “keep full” customers may be a better barometer of the inability to meet demand.

Market Conditions, Supply Shortage, and Infrastructure Damage Considerations

1. Are terminal lines or product shortages the result of product allocations by a single supplier within the region, or have many suppliers or one of the major regional suppliers been affected?
2. What is the state and regional inventory picture and how does it compare to last year, the recent average for the month, or the high and low for the month?
3. Has a pipeline, refinery, or terminal been damaged or closed for repair or maintenance?
4. Is a damaged pipeline refinery or terminal dispensing reduced quantities of product? Has distribution actually stopped?
5. How long is a damaged pipeline, refinery, or terminal expected to be at reduced capacity or shut down?
6. What is the geographic range of product distribution from the pipeline, refinery, or terminal?
7. Are terminals within the region out of a fuel for much longer than may be usual and if so for how long?
8. Are terminal outages limited to one or two terminals within the region?
9. Are alternative suppliers available within the region or outside the region?
10. Can transporters reach alternative suppliers within normal hours of service limitations?
11. Are there other mitigating factors that will lessen the threat to the public (e.g., mild weather, alternative product availability)?

Multistate Regional Supply Shortage and Infrastructure Damage

1. A regional emergency should not be declared solely because of outages or lines at one or a few terminals, unless obtaining fuel from alternative suppliers is impossible within normal hours of service limitations.
2. A regional emergency should not be declared if consumer demand for a given product is low at the time of the supply shortage (e.g., warm weather during a propane shortage), unless the shortage becomes sufficiently sustained that retailers are unable to replenish their own supplies.
3. A regional emergency should not be declared if alternative products are readily available (e.g., low sulfur on-highway diesel fuel in place of high sulfur, Number 2 home heating oil, propane).
4. Weather factors can exacerbate supply problems or infrastructure damage; the combined effects of different factors that by themselves would not result in emergencies should be considered.

Transportation Considerations

1. Have jobbers, transporters and retailers utilized all qualified drivers in service?
2. Have or will all qualified drivers exhaust their hours of availability under normal hours of service limitations?
3. Have all available trucks been placed into service?

¹¹³ These are customers that do not have regularly scheduled deliveries but rather only purchase fuel when they need to by calling the company to arrange for a delivery.

4. Have third party carriers been contacted and found to be not available?
5. Are there lines at fuel terminals and what is the wait time for loading?
6. Are there lines at fuel terminals during all hours, including nighttime?
7. Are trucks lined up at fuel terminals with waits longer than four hours to load supplies; if so, during what hours of the day and/or night have lines been observed?
8. Are lines at terminals isolated to one or two specific terminals within the region?
9. What other actions has the industry taken to avoid the need to grant safety rule waivers?
10. The fact that fuel truck drivers require special training and certification is a limitation on the ability to employ extra drivers during emergencies. However, retailers, transporters, and jobbers should make efforts to hire all available drivers and to place into service all available trucks during emergencies or shortages.
11. Long waits at terminals during the day do not demonstrate a shortage of product or a need for driver-hour waivers if those lines disappear at night.
12. Lines at one terminal and the absence of lines at another may reflect price shopping rather than product shortages or transportation disruptions. Waivers should not be granted where terminal lines are the result of economic decisions.

Multistate Regional Transportation Considerations	
1.	Which states have been directly affected by severe weather (e.g., cold, ice, snow)?
2.	How many states are served by terminals that are out of product or at which there are long lines?
3.	How many states are served by pipelines that are out of service or that have restricted supplies?
4.	How do affected states obtain fuel supplies? Is travel outside the state vital to obtaining product?
5.	Has severe weather affected a state that significant numbers of transporters from another state need to travel in to obtain supplies?

Reasons to Request Waivers from FMCSA Regional Administrator	
1.	Uniformity in hours of service requirements among affected states is desirable. If several states are similarly affected, they should receive (or be denied) the same relief.
2.	Consideration should be given to the fact that states with cold-related emergencies (heightened demand) may draw supplies from a state that is less affected by the same problem; drivers serving an emergency in one state will still need to cross state lines to obtain product.
3.	Consideration should be given to where drivers will need to go to obtain alternative supplies in the event of severe shortages or extreme demand. The preceding information is intended to serve as a general guideline. It is not expected that information answering all of these questions will be available. However, to the extent that states can provide a good, detailed assessment of the problem, the potential for the appropriate granting of a waiver by the FMCSA regional administrator is more likely.

Legal Authority

Limits on the number of hours a truck driver can operate a vehicle are specified under requirements of the FMCSR issued pursuant to FMCSA (49 CFR §390- 399, especially 49 CFR 395). As a general matter any motor carrier providing direct relief to the emergency is relieved from all of 49 CFR Parts 390 to 399 (not just hours of service). Regulations are also relieved in any state that the “supporting commercial motor vehicle” is operating, regardless of whether the state in which it is operating has declared an emergency. Details on [Hours of Service limits](#)¹¹⁴ and specific rules (“390.23 Relief from regulations,” which includes Parts 390 to 399) can be found on the FMCSA website¹¹⁵. If a state has in some way adopted under state rule or law similar limitations on driver hours of service, the governor’s declaration should also explicitly waive those state provisions as well and should include the citation of state laws or administrative rules that would also apply.

¹¹⁴ Code of Federal Regulations. Title 49: Transportation. Subtitle B. Chapter III. Subchapter B. Part 390.23 Relief from Regulations.

https://www.ecfr.gov/cgi-bin/retrieveECFR?gp=1&ty=HTML&h=L&mc=true&PART&n=pt49.5.390#se49.5.390_123

¹¹⁵ Federal Motor Carrier Safety Administration. Section 390.23 Relief from Regulations Guidance Questions and Answers. <https://www.fmcsa.dot.gov/regulations/title49/section/390.23>

Implementation Procedures

If the governor has declared an emergency in all or any part of the state, driver hours of service are automatically waived for drivers making deliveries to provide emergency relief to the affected area. This measure should specify the state agency that has the lead responsibility for providing notification of this action to the trucking and fuel suppliers, state motor carriers, and local jurisdictions. In a declared energy emergency, such as a severe propane shortage, propane or fuel oil delivery drivers are exempted. This permits them to drive additional hours for delivery or to reach distant supply terminals and return expeditiously. In a natural disaster, such as a winter storm, hurricane, or declared emergency, drivers can work additional hours needed to resupply fuel and other goods needed for disaster recovery. Drivers passing through multiple states do not require that waivers be in effect in those states if they are providing supplies to an area where an emergency has been declared. For example, a petroleum tanker moving fuel from Texas to Michigan, where an emergency has been declared, is waived through all the states that it may traverse in order to exclusively serve the geographic area in which an emergency has been declared. (The driver cannot stop in other states to make deliveries there.)

This measure should specify the state agency that has the lead responsibility for providing the following notifications:

1. Post a copy of the governor's (or other authorized official's) emergency declaration on a publicly available website and provide a link to the emergency declaration as part of notifications made to state, local, and federal agencies, and the motor carrier industry.
2. Notify the motor carrier safety enforcement agency of state government that an emergency has been declared, in what part of the state it has been declared, and that as a result of this declaration the safety regulations are temporarily waived.
3. Provide notification of emergency declaration to the FMCSA state office and regional administrator.
4. Notify motor carrier industry associations or motor carriers servicing the state directly through any automated system to quickly communicate with the industry. This communication should encourage, but does not require, drivers transporting fuels to the areas in which an emergency has been declared to have with them a copy of the emergency declaration. Rather, a copy of the website link from the declaration can be printed and a bill of lading showing that they are delivering to the area in which an emergency or disaster has been declared.
5. Provide notification to state energy emergency assurance coordinators in those states within the region that may have motor carriers passing through them to provide relief in the affected state. It is also advisable to coordinate with neighboring states in advance of this declaration, if possible.

Cost of Implementation and Operation

There is minimal cost to issuing an executive order and to provide for industry notification, and no additional costs to facilitate an hours of service waiver from the FMCSA.

Fuel Savings

This measure is not intended to reduce fuel usage, although coordination of such actions may provide an indirect benefit.



Advantages

- This is an effective and straightforward way to help meet consumer demand when there is an impediment to petroleum shipping and delivery, provided the shortage is based on distribution bottlenecks due to refinery shutdowns or pipeline delivery shutdowns or delays or other factors that can affect highway movements such as major snow and ice storms or landslides blocking key travel routes or bridge shutdowns
- If drivers are required to drive to more distant locations or if the lines for trucks waiting to load at petroleum product terminals are long, waivers can help overcome these problems

Disadvantages

- The measure could be used unnecessarily if the proper due diligence is not performed
- Possible pushback from labor groups if the nature of the emergency does not warrant a waiver
- Increased risk of potential accidents if drivers do not get needed rest periods

DRAFT WAIVER OF SELECT MOTOR CARRIER SAFETY REGULATIONS

**Executive Order [insert number and year]
State of [Energy] Emergency [or Disaster]
Waiver of Select Regulations Covering Motor Carriers and Drivers
Transporting [insert fuels covered by the order, e.g., gasoline, diesel fuel, propane, Number 2 home heating oil, etc.]**

WHEREAS, [insert citation to legal authorities that give the governor the authority to take the actions contained in the order];

WHEREAS, [insert a brief description of the event(s) that have required this action]; and

WHEREAS, [insert a brief description of the consequences and impacts of the event(s)]; and

WHEREAS, it is in the best interests of the State of [insert name] to provide for the safe transportation of petroleum products within this State, and to assure that petroleum product supplies will remain sufficient to protect the health, safety, and economic well-being of the State’s residents and visitors; and

WHEREAS, this declaration of emergency [disaster] is recognized by the Federal Motor Carrier Safety Administration (FMCSA) to cause and to place into immediate effect relief from Federal Motor Carrier Safety Regulations contained in 49 CFR Parts 390-399; and [if applicable, insert any corresponding or equivalent reference in state law].

WHEREAS, all of the safety regulations contained in 49 CFR Parts 390-399 are waived, including Driver Hours of Service; however, motor carriers are encouraged to comply with the safety regulations that do not otherwise restrict or impede their ability to assist in the recovery effort in the area for which an emergency has been declared.

NOW, THEREFORE, I, [insert governor’s name], Governor of the State of [insert state name], by virtue of the power and authority vested in the Governor by [insert legal reference to authorities], order the following:

1. A State of [Energy] Emergency [Disaster] is declared in the State of [insert state name] for [insert the names of the counties in which this declaration applies or specify that it is a statewide declaration].
2. Relief from Federal Motor Carrier Safety Regulations contained in 49 CFR Parts 390-399; and [if applicable, insert any corresponding or equivalent reference in state law as may be needed].
3. This order applies only to [insert fuels to be covered by this order, e.g., gasoline, diesel fuel, Number 2 home heating oil, propane, biofuels, etc.]. No other petroleum products or other fuels are covered by the exemption and suspension under this Order.
4. The relief from these regulations shall remain in effect for the duration of the emergency or thirty (30) days, whichever is less. Only the FMCSA Field Administrator can extend the thirty (30) day limit for an extension of relief from the federal safety regulations.
5. Nothing in this Order shall be construed as an exemption from applicable controlled substances and alcohol use and testing requirements (49 CFR Part 382 and [insert applicable state statute, order, and/or rule]), the commercial driver’s license requirements (49 CFR Part 383 and [insert applicable state statute, order, and/or rule]), the financial responsibility requirements (49 CFR Part 387 and [insert applicable state statute, order, and/or rule]), applicable size and weight requirements, or any portion of federal and State regulations not specifically identified.
6. Motor carriers or drivers currently subject to an out-of-service order are not eligible for the exemption and suspension until the out-of-service order expires or the conditions for rescission have been satisfied.

Governor: _____
Dated: _____ [Insert location]

File with [insert name of the state office, department, or legislative body with which the order may need to be filed]

b) WAIVERS OF ENVIRONMENTAL FUEL SPECIFICATIONS

Summary

The U.S. Environmental Protection Agency (EPA) and most states have requirements on gasoline and diesel fuel specifications that are designed to limit emissions. Waving certain fuel specifications can increase overall supply, and will allow supplies to be distributed in areas where the product may not normally be used. In an extreme or unusual fuel supply circumstance, EPA, in consultation with DOE, may temporarily waive fuel specifications. States with fuel specification requirements codified in regulation may also need to waive the applicable state rules for the EPA waiver to be effective.

EPA typically consults with states affected by a fuel supply situation to determine the scope, duration, and details of a fuel waiver. This requires close coordination between the emergency management agency, the air quality agency, and the state agency responsible for ESF-12 or the petroleum component of the state's energy assurance plan, and any state agency with regulations covering fuel properties that may need to issue a waiver. Consultation with DOE and EPA may prove useful to a state that has fuel specifications that are unique to the state and not required by EPA.

EPA regulates Reid vapor pressure (RVP) — a measure of the volatility of gasoline — only in the summer months, while other requirements like EPA's reformulated gasoline (RFG) program, may be in effect year-round. States that regulate fuel properties often reference industry standards, such as ASTM D4814 for gasoline, and also apply year-round. Summer hurricanes impacting the Gulf Coast have historically resulted in the issuance of state and federal waivers that address seasonal RVP standards. RVP waivers issued by states and EPA are often set to expire on the date when a higher RVP fuel is normally permitted in the area to avoid a logistically difficult transition back to the stricter specification for a short period of time. EPA regulates RVP through September 15 in most areas, and states that regulate RVP by reference to ASTM standards make step-transitions to less stringent requirements at varying dates throughout the fall season.

For more information see the following EPA resources:

- [Fuel Waivers and Exemptions](#)¹¹⁶
- [Gasoline Reid Vapor Pressure](#)¹¹⁷
- [State Gasoline Standards](#)¹¹⁸

Description

In the event of a fuel supply emergency, the U.S. Environmental Protection Agency, with the concurrence of the U.S. Department of Energy, may temporarily waive a federal fuel or fuel additive requirement if doing so will alleviate the fuel supply emergency. States that regulate fuel properties may have to issue a similar waiver for an EPA waiver to become effective. Fuel waivers may apply to both gasoline and/or diesel fuel. A waiver can remove regulatory restrictions that normally prohibit distribution between geographic areas, and/or increase refiners' ability to produce more fuel. For example, a fuel waiver may allow the use of higher volatility (RVP) gasoline from rural areas of the state to address a fuel supply shortage in urban areas where fuel specifications are more stringent due to air quality concerns. Summer RVP gasoline specifications are more restrictive than winter grades as well.

¹¹⁶ U.S. Environmental Protection Agency. Fuel Waivers and Exemptions. <https://www.epa.gov/gasoline-standards/fuel-waivers-exemptions>

¹¹⁷ U.S. Environmental Protection Agency. Gasoline Reid Vapor Pressure. <https://www.epa.gov/gasoline-standards/gasoline-reid-vapor-pressure>

¹¹⁸ U.S. Environmental Protection Agency. State Gasoline Standards. <https://www.epa.gov/gasoline-standards/state-gasoline-standards>

Similarly, a waiver of summer volatility requirements could allow winter grade gasoline to be used during a summer high ozone season if refining or distribution capacity has been significantly degraded. These requirements greatly vary from state to state.

[Insert a description of your state's gasoline fuel specification for summer and winter months with the dates when they are effective and describe the geographic areas of the state, if any, that have different or more stringent requirements.]

Intent of the Measure

Disruptions can be caused by a number of situations including refinery or pipeline infrastructure damage or the result of natural disasters or equipment failure. Temporary fuel waivers are intended to help ensure that an adequate supply of fuel is available, particularly for emergency vehicle needs. If the fuel waiver criteria have been met, the EPA may waive fuel restrictions for a designated area for a designated period of time. This provides petroleum suppliers and refiners with added supply flexibility during a shortage.

Conditions Under Which Measure May Be Used

Fuel or fuel additive requirements may be temporarily waived if doing so will alleviate a fuel supply emergency or shortage. Spot or localized shortages generally are not fuel supply disruptions for which a waiver may be issued nor are events that could have been reasonably foreseen or prevented or are a result of a lack of prudent planning on the part of the suppliers of the fuel or fuel additive. A fuel supply disruption that meets the criteria for a waiver must be one that results in a supply emergency affecting many suppliers for which access to alternative fuel types in the marketplace will provide relief.

In 2012, Superstorm Sandy seriously disrupted petroleum product supplies in New York Harbor, shut down refineries in the area, and a number of petroleum terminals were unable to operate due to the power outage, all of which significantly impacted supplies. To help facilitate the recovery efforts, the president ordered that EPA fuel specification be waived.

“On October 31, 2012, due to pipeline disruptions distributing fuel to the northeast, EPA waived requirements for the use of Reformulated Gasoline in the following states: Connecticut, Delaware, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Virginia and the District of Columbia. In addition, also waived were additional requirements prohibiting “blending” of certain types of gasoline, applicable in each of these states, as well as in Mississippi, Alabama, Georgia, Tennessee, South Carolina, and North Carolina, to facilitate distribution of fuel to areas affected by Hurricane Sandy, through November 20, 2012.”¹¹⁹

Other examples include waivers of requirements for federal 7.8 psi Reid vapor pressure requirement through the end of the “high ozone” season, the requirement for use of ultra-low sulfur diesel in emergency response vehicles and equipment.¹²⁰

¹¹⁹ U.S. Environmental Protection Agency. October 2012 Fuel Waiver Concerning Connecticut, Delaware, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Virginia, Mississippi, Alabama, Georgia, Tennessee, South Carolina, North Carolina, and the District of Columbia. October 31, 2012. <https://www.epa.gov/sites/production/files/documents/multistate-fuelwaiver103112.pdf>

¹²⁰ U.S. Environmental Protection Agency. 2016 Fuels Waivers. <https://www.epa.gov/sites/production/files/documents/multistate-fuelwaiver103112.pdf>

Legal Authority

A fuel waiver can be issued by EPA only when the criteria specified in the Clean Air Act Section 42 U.S.C. (§7545 USC) (c)(4)(C)(ii)¹²¹ have been met. In general, these criteria allow a fuel waiver to address an extreme and unusual fuel supply circumstance that will prevent the distribution of an adequate supply of compliant fuel and is the result of a natural disaster, an act of God, a pipeline or refinery equipment failure that could not reasonably have been foreseen or prevented, and is not attributable to a lack of prudent planning on the part of suppliers of the fuel to the state or region.

Authority to grant a state waiver varies from state to state, and in some cases is predicated on the declaration of a state of emergency.

Implementation Procedures

EPA typically consults with states affected by a fuel supply situation to determine the scope, duration and details of a fuel waiver. This requires close coordination between the emergency management agency, the air quality agency, and the state agency responsible for ESF-12 or the petroleum component of the state's energy assurance plan, and any state agency with regulations covering fuel properties that may need to issue a waiver. Consultation with DOE and EPA may prove useful to a state that has fuel specifications that are unique to the state and not required by EPA.

If fuel waivers are under consideration as requested, it is important to ensure coordination among all necessary state agencies including the air quality, emergency management, energy, and any other agencies with regulations pertaining to fuel specifications. The EPA is prepared to work closely with state officials especially during emergencies.

In emergency circumstances, a request for a fuel waiver is made to the EPA by, or on behalf of, the governor after consultation with the air quality agency, energy agency, and the emergency management agency. During normal business hours (Monday through Friday, 8 a.m. to 5 p.m. Eastern Time), the first point of contact for obtaining information about a fuel waiver request is the EPA Air Enforcement Division at (202) 564-2260, or the Compliance Division (Kurt Gustafson at (202) 403-4419 or gustafson.kurt@epa.gov, and Madison Le at (202) 507-3062 or le.madison@epa.gov). Outside of normal business hours, the point of contact is the EPA Emergency Operations Center at (202) 564-3850, which is able to communicate with EPA officials who provide assistance regarding fuel waiver requests.

Once the decision has been made to seek waivers and upon the granting of waivers by the Environmental Protection Agency and the issuance of an executive order of the governor, a press release should be issued explaining the waivers, the reasons they have been initiated, the area of the state in which they are in effect, and the duration of time in which the waivers will be in effect.

¹²¹ (ii) The administrator may temporarily waive a control or prohibition respecting the use of a fuel or fuel additive required or regulated by the administrator pursuant to subsection (c), (h), (i), (k), or (m) of this section or prescribed in an applicable implementation plan under section 7410 of this title approved by the administrator under clause (i) of this subparagraph if, after consultation with, and concurrence by, the secretary of Energy, the administrator determines that—

(I) extreme and unusual fuel or fuel additive supply circumstances exist in a state or region of the nation that prevent the distribution of an adequate supply of the fuel or fuel additive to consumers;

(II) such extreme and unusual fuel and fuel additive supply circumstances are the result of a natural disaster, an act of God, a pipeline or refinery equipment failure, or another event that could not reasonably have been foreseen or prevented, and not the lack of prudent planning on the part of the suppliers of the fuel or fuel additive to such state or region; and

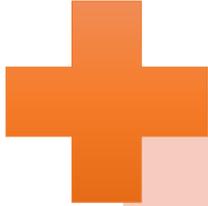
(III) it is in the public interest to grant the waiver (for example, when a waiver is necessary to meet projected temporary shortfalls in the supply of the fuel or fuel additive in a state or region of the nation that cannot otherwise be compensated for).

Cost of Implementation and Operation

There is no cost associated with implementing this measure except for the time required in the decision-making process and in the preparation and execution of the executive order.

Fuel Savings

This measure would not generate fuel savings.



Advantages

- In applicable situations, a waiver would be an effective, low cost method to alleviate supply shortages during summer months
- Additional gasoline supplies may help mitigate price increases resulting from a supply shortage
- This measure does not require sacrifice on the part of the public
- Replacement of nonstandard fuel at the end of a waiver is not required. The EPA waivers are written to allow existing supply of nonstandard fuel to be kept in the supply stream after the waiver period until used. Turnover of nonstandard fuels occurs quickly. If the waiver involves summer grade fuel and comes at a time near the end of the summer fuel requirements, keeping the waiver in place until the summer fuel requirements end might be considered

Disadvantages

- Gasoline volatility standards are necessary to control the emissions of volatile organic compounds (VOC), which contribute to ozone pollution. Fuels waivers that allow use of gasoline with higher volatility may result in increased VOC emissions that decrease air quality
- Its effectiveness is limited to specific circumstances where an easing of EPA and state rules can be beneficial. It does not address overall supply shortages where all fuels (regardless of blend) are in short supply
- Expiration of the waivers could mean replacing all the nonstandard fuel with fuel that meets the specifications. This may take time and the larger the geographic area and duration of time covered by the waivers, the longer it will take to replace the nonstandard fuel held in retail and secondary storage. If the waiver involves summer grade fuel and comes at a time near the end of the summer fuel requirements, keeping the waiver in place until the summer fuel requirements no longer apply will simplify the transition

DRAFT WAIVER OF TEMPORARY SUSPENSION OF FUEL SPECIFICATIONS

**State of [Energy] Emergency [or Disaster]
Waiver of Temporary Suspension of Fuel Specifications [or insert name of specification being waived, e.g., RFG, RVP,
etc.]**

WHEREAS, [insert citation to legal authorities that give the governor the authority to take the actions contained in the order];

WHEREAS, [insert a brief description of the event(s) that have required this action]; and

WHEREAS, [insert a brief description of the consequences and impacts of the event(s)]; and

WHEREAS, it is in the best interests of the State of [insert state name] to provide for temporary waivers of state and federal fuels specifications; and

WHEREAS, appropriate measures must be taken in response to the energy emergency to ensure that gasoline [and/or diesel fuel] supplies will remain sufficient and to assure the health, safety, and welfare of residents and visitors;

NOW, THEREFORE, I, [insert governor's name], Governor of the State of [insert state name], by virtue of the power and authority vested in the Governor by [insert legal reference to authorities], order the following:

[Insert the information on the specific waivers granted by the Environmental Protection Agency. If the fuel specifications that have been waived have been adopted as part of the state implementation program and adopted under rule or law, the governor will need to at this point include references to those specific rules or laws and also waive those provisions for the same duration as approved by Environmental Protection Agency.]

Duration of Order

This order shall remain in effect for [insert number of] days from its effective date unless amended, superseded, or rescinded by further Executive Order [or proclamation]. It shall expire in [insert number of] days after the proclamation of a state of emergency unless extended as provided for in [insert reference to the statute under which this action is based. Alternatively, it could say until such time as supply conditions improve and the plan is no longer needed and the governor issues an order rescinding the plan.]

Governor: _____

Dated: _____ [insert location]

File with [insert the name of the state office, department, or legislative body with which the order may need to be filed]

4. FEDERAL MEASURES REQUIRING FURTHER DETAILS FOR INCLUSION IN PLANS

a) INTERNAL REVENUE SERVICE DYED DIESEL FUEL WAIVERS

Background

Most dyed diesel fuel sold in the U.S. comes with a red coloring. By law, this dyed diesel fuel is only for use in off-road vehicles or non-highway use, such as farm tractors, heavy construction equipment, home heating, and generators. The Internal Revenue Service (IRS) imposes a highway excise tax of 24.4 cents per gallon¹²² on diesel fuel sold for on-road use. Dyed diesel fuel used is not ordinarily subject to this tax. By dyeing the untaxed fuel, it allows for enforcement action if a truck is found to have red diesel fuel in their fuel tanks. Typically, if a diesel fuel that was not subject to this excise tax was converted to use for on-road purposes, the IRS would require that use to be reported and the tax paid accordingly. When a waiver is instated, the tax may not be applied to individuals who sell or use dyed diesel fuel for highway use.¹²³ If there was a serious shortage of non-dyed diesel fuel and not dyed diesel fuel, the state could request temporary waivers of this requirement.

Past Use

In the aftermath of Hurricane Sandy, the states of New Jersey, New York, and Pennsylvania experienced shortages of clear (non-dyed) diesel fuel for highway use. As a result, a tax penalty was temporarily waived by the IRS and not imposed on dyed diesel fuel sold for use on the highway. More information on this particular instance of the diesel fuel penalty being waived can be found on the IRS [website](#)¹²⁴.

Point(s) of Contact¹²⁵

The excise operation phone number for the IRS is: 866.699.4096 and is available Monday through Friday from 8 a.m. to 6 p.m. ET.

In addition to official coordination with the IRS, consider sharing any waiver requests or implementations with EnergyResponseCenter@hq.doe.gov to improve situational awareness.

b) JONES ACT WAIVERS

Background

The Merchant Marine Act, also known as the Jones Act, prohibits any foreign-built, foreign-owned, or foreign-flag vessel (foreign vessels) from transporting goods between U.S. ports. The same prohibitions apply to U.S.-flag vessels that are not coastwise qualified. However, during emergency responses, resources, including shipping vessels, can be scarce. The Jones Act can only be waived in the interest of national defense. When the Jones Act is waived, foreign vessels and U.S.-flag vessels that are not coastwise qualified are authorized to transport goods between U.S. ports. If the secretary of Defense requests a Jones Act waiver, the secretary of Homeland Security (DHS) must grant a Jones Act waiver to the extent the secretary of DHS considers necessary in the interest of national defense. For all other Jones Act waiver requests, the secretary of DHS may grant a Jones Act waiver if: (1) the secretary of DHS considers it necessary in the interest of national defense; and (2) the administrator of the Maritime

¹²² This includes the 1/10th cents fee to fund the Leaking Underground Storage Tank Trust Fund.

¹²³ Internal Revenue Service. Publication 225, Farmer's Tax Guide. https://www.irs.gov/publications/p225#en_US_2016_publink1000218862

¹²⁴ Internal Revenue Service. IRS Waives Diesel Fuel Penalty Due to Hurricane Sandy. November 3, 2012. <https://www.irs.gov/newsroom/irs-waives-diesel-fuel-penalty-due-to-hurricane-sandy>

¹²⁵ U.S. Department of Energy. Energy Waiver Library. https://energy.gov/oe/services/energy-assurance/response-and-restoration/energy-waiver-library?utm_source=2Q%202017%20Energy%20Security%20Committee%20Call%20%2806202017%29&utm_campaign=Energy%20Security%20Call%20Agenda%20120516&utm_medium=email#FMSCA

Administration (MARAD), a component of DOT, has determined that no qualified U.S.-flag vessels are available to meet the national defense requirements. For additional information on coastwise trade that includes waiver information, please see the U.S. Department of Homeland Security's [Amendment to the Waiver of compliance with Navigation Laws](#).¹²⁶

A Jones Act waiver request must be made to U.S. Customs and Border Protection (CBP) and is coordinated with the following agencies: the U.S. Maritime Administration (MARAD), Department of Defense (DoD), and U.S. Department of Energy. DOE monitors petroleum supply needs and advises CBP during periods of actual or imminent shortages of energy on requests for waivers of the Jones Act.

Past Use

Following Hurricane Katrina in 2005 and Hurricane Sandy in 2012, DOE recommended the secretary of DHS issue a Jones Act waiver to facilitate the transportation of necessary volumes of petroleum products to the impacted areas. Based on concurrence by DOE and DoD, and after consultation with MARAD, the secretary of DHS issued a Jones Act waiver¹²⁷ permitting foreign vessels and U.S.-flag vessels that are not coastwise qualified to transport petroleum products including other feedstocks, blending components, and additives used to produce fuels to the impacted areas. The waiver lasted for almost three weeks.

Point(s) of Contact¹²⁸

Requests to waive the Jones Act should be directed to the Cargo Security, Carriers and Immigration Branch, Regulations and Rulings, Office of International Trade, U.S. Customs and Border Protection, phone: 202.325.0030 or fax: 202.325.0152. A Jones Act waiver request should include the purpose for which the waiver is sought, port(s) involved, and estimated period of time for which the waiver is sought.

Consider sharing any waiver requests that implicate energy supply needs or shortages with EmergencyResponseCenter@hq.doe.gov to facilitate processing of such requests in a timely manner.

c) FEDERAL ENERGY REGULATORY COMMISSION ORDERS DIRECTING PRIORITY PROPANE PIPELINE SHIPMENTS

Background

DOE's Office of Electricity Delivery and Energy Reliability issued a report¹²⁹ on heating fuel markets that said, "On February 7, 2014, in another effort to alleviate the propane shortages in the Midwest and Northeast, the Federal Energy Regulatory Commission (FERC) invoked its emergency authority under the Interstate Commerce Act to direct Enterprise TE Products Pipeline Company, LLC (TEPPCO) to temporarily provide priority treatment to propane shipments from Mont Belvieu, Texas. In response to the FERC order, approximately 18 million barrels per day of supply was added to the TEPPCO pipeline serving the Midwest and Northeast. This was the first time that FERC had used this emergency

¹²⁶ U.S. Department of Homeland Security. Amendment to the Waiver of Compliance with Navigation Laws. Issued on November 2, 2012. https://www.cbp.gov/sites/default/files/documents/jones_act_amendment_2.pdf

¹²⁷ Ibid.

¹²⁸ U.S. Department of Energy. Energy Waiver Library. https://energy.gov/oe/services/energy-assurance/response-and-restoration/energy-waiver-library?utm_source=2Q%202017%20Energy%20Security%20Committee%20Call%20%2806202017%29&utm_campaign=Energy%20Security%20Call%20Agenda%20120516&utm_medium=email#FMSCA

¹²⁹ U.S. Department of Energy. An Assessment of Heating Fuels and Electricity Markets During the Winters of 2013-2014 and 2014-2015. October 2015. https://energy.gov/sites/prod/files/2015/10/f27/DOE_OE_Two%20Winters%20Report_Final_10.19.15.pdf

authority for any reason.¹³⁰ This authority might be used to give priority to other liquid fuels when future fuel shortages might warrant.

Section 1(15) of the Interstate Commerce Act (ICA)¹³¹ states in pertinent part:

“Whenever the Commission is of opinion that shortage of equipment, congestion of traffic, or other emergency requiring immediate action exists in any section of the country, the Commission shall have, and it is given, authority, either upon complaint, or upon its own initiative without complaint, at once, if it so orders, without answer or other formal pleading by the interested carrier or carriers, and with or without notice, hearing, or the making of a filing or report, according as the Commission may determine... (d) to give directions for preference or priority in transportation, embargoes, or movement of traffic under permits, at such time and for such periods as it may determine, and to modify, change, suspend or annul them.”

The FERC order states in part:

“The January 28, 2014 Department of Homeland Security IIA Update 1: Propane Supply Issues in the United States had three key findings: (1) Unseasonably cold weather is expected over the next two weeks and additional regions or states are likely to extend or issue emergency declarations; (2) The Department of Transportation has issued emergency declarations concerning trucking regulations in 35 states and the District of Columbia to help facilitate the delivery of propane to commercial and residential customers; and (3) Because prices are continuing to rise, some states are providing emergency heating assistance to residents who can no longer afford fuel costs.¹³² The report further describes the wide ranging impact of propane shortages. In the Midwest and Northeast, limited supplies have forced companies to “short-fill” customer tanks. Counties in Tennessee and Alabama have been forced to close schools due to lack of propane for heat. Many states have limited or curtailed propane deliveries to municipal and commercial facilities in favor of residential customers. The report also recognizes economic impacts on chicken farmers, pig farmers, and dairy farms in the South and Midwest that use propane to maintain the livelihood and health of their stock.

“Based upon this information, and other information written in letters by Governors,¹³³ Senators and members of Congress outlining the emergencies occurring in their respective states, the Commission is of the opinion that an emergency exists requiring immediate action. The Commission therefore invokes its authority pursuant to section 1(15)(d) of the ICA and directs Enterprise TEPPCO to provide priority for propane pursuant to its authority in its portioning policy “to allocate its Available Capacity on any equitable basis, in a manner different from this policy, during a generally recognized emergency period in order to alleviate the emergency conditions.” Compliance with this directive shall begin immediately and remain in place for seven days from the date of this order pending further review and order of the Commission.”

¹³⁰ Platts. Enterprise Increasing TEPPCO Propane Shipments Following US FERC Order. February 10, 2014. <https://www.platts.com/latest-news/oil/houston/enterprise-increasing-teppco-propane-shipments-21198473>

¹³¹ 49 App. U.S.C. § 1(15) (1988)

¹³² U.S. Department of Homeland Security, Integrated Analysis Task Force. IIA Update 1: Propane Supply Issues in the United States. Jan.28, 2014.

¹³³ Midwest Governors Association. Propane Supply Letter to President Barack Obama. February 4, 2013. <http://www.midwesterngovernors.org/resolutions/2014/Propane.pdf>

For more information see the following resources:

- U.S. Department of Energy's [An Assessment of Heating Fuels and Electricity Markets During the Winters of 2013-2014 and 2014-2015](#).¹³⁴
 - [Inside Climate News's U.S. Propane Shortage Provides Lessons for Debate Over Oil and Gas Exports](#)¹³⁵
 - U.S. Senate Committee on Energy and Natural Resources [Hearing on Winter Propane Shortages](#)¹³⁶
- d) PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION SPECIAL PERMITS TO MODIFY REGULATORY COMPLIANCE

Background

The Pipeline and Hazardous Materials Safety Administration (PHMSA) is charged with ensuring the safe transportation of energy and other hazardous materials through the establishment of national policy, the enforcement of standards and regulations, education, and research to prevent incidents.

During an incident, PHMSA has the ability to issue an emergency special permit without notice and comment or hearing if the associate administrator of Pipeline Safety determines that such action is in the public interest, is not inconsistent with pipeline safety, and is necessary to address an actual or impending emergency involving pipeline transportation. Special permits are authorized by statute in [49 USC § 60118\(c\)](#)¹³⁷ and the application process is set forth in [49 CFR 190.341](#). Once an emergency special permit request is received, PHMSA will determine on a case-by-case basis what duration is necessary to address the emergency. However, as required by statute, no emergency special permit may be issued for a period of more than 60 days. Each emergency special permit will automatically expire on the date specified in the permit. Emergency special permits may be renewed upon application to PHMSA only after notice and opportunity for a hearing on the renewal.

Past Use

Following Hurricane Sandy in 2012, DOT/PHMSA issued an emergency special permit to waive compliance from certain hazardous liquids requirements of 49 CFR Part 195 for the operation of two terminals in New Jersey. The waiver allowed for increased manpower to increase the output of product to near normal levels considering the damage from the recent storm and hardship in the area. For more information on emergency special permits issued by PHMSA, please visit its [website](#)¹³⁸ for additional information, requirements, previous register notices related to special permit applications, and available state waivers.

¹³⁴ U.S. Department of Energy. An Assessment of Heating Fuels and Electricity Markets During the Winters of 2013-2014 and 2014-2015. October 2015. https://energy.gov/sites/prod/files/2015/10/f27/DOE_OE_Two%20Winters%20Report_Final_10.19.15.pdf

¹³⁵ Inside Climate News. U.S. Propane Shortage Provides Lessons for Debate Over Oil and Gas Exports. March 10, 2014. <https://insideclimatenews.org/news/20140310/us-propane-shortage-provides-lessons-debate-over-oil-and-gas-exports>

¹³⁶ U.S. Senate Committee on Energy and Natural Resources Hearing (113th Congress). Winter Propane Shortages Hearing. May 1, 2014. <https://www.scribd.com/document/321744096/SENATE-HEARING-113TH-CONGRESS-WINTER-PROPANE-SHORTAGES>

¹³⁷ U.S. Government Publishing Office. 49 U.S.C. 60118 – Compliance and Waivers. <https://www.gpo.gov/fdsys/granule/USCODE-2011-title49/USCODE-2011-title49-subtitleVIII-chap601-sec60118>

U.S. Government Publishing Office. 49 CFR 190.341 – Special Permits. <https://www.gpo.gov/fdsys/granule/CFR-2010-title49-vol3/CFR-2010-title49-vol3-sec190-341>

¹³⁸ Pipeline and Hazardous Materials Safety Administration. Special Permits and State Waivers Overview. <https://www.phmsa.dot.gov/pipeline/special-permits-state-waivers/special-permits-and-state-waivers-overview>

Point(s) of Contact¹³⁹

Requests for emergency special permits should be directed to PHMSA's Office of Pipeline Safety at: 202.366.4595 and email: phmsa.pipeline-emergencyspecpermit@dot.gov.

e) FEDERAL PETROLEUM PRODUCT RESERVES

Background

The U.S. Department of Energy administers two federally controlled petroleum product reserves the [Northeast Gasoline Supply Reserve](#)¹⁴⁰ ¹⁴¹ and the [Northeast Home Heating Oil Reserve](#)¹⁴² ¹⁴³. Following is a summary of these two programs from DOE's website.

Northeast Gasoline Supply Reserve (NGSR)	Northeast Home Heating Oil Reserve (NEHHOR)
<p>The Northeast Gasoline Supply Reserve (NGSR) was created to help strengthen regional fuel resiliency in the Northeast; it holds one million barrels of gasoline:</p> <ul style="list-style-type: none">• 700,000 barrels located in the New York Harbor area• 200,000 barrels positioned in the Boston area• 100,000 in South Portland, Maine <p>The Northeast region of the U.S. is particularly vulnerable to gasoline disruptions as a result of hurricanes and other natural events. Hurricane Sandy in 2012 caused widespread issues related to the availability of gasoline. In response, to help build a more secure and resilient energy infrastructure, the Energy Department established the first federal regional refined petroleum product reserve containing gasoline.</p>	<p>The Northeast Home Heating Oil Reserve (NEHHOR) is a one-million-barrel supply of ultra-low sulfur distillate (diesel) that provides protection for homes and businesses in New England in the Northeastern United States should a disruption in supplies occurs. (Of all the households in the United States that use heating oil to heat their homes, the majority reside in the Northeast region of the country – making this area especially vulnerable to fuel oil disruptions.)</p> <p>The heating oil is stored in two terminals in the Northeast:</p> <ul style="list-style-type: none">• 500,000 barrels at the Hess Corporation terminal in Groton, Connecticut• 500,000 barrels at the Global Companies terminal in Revere, Massachusetts¹⁴⁴
<p>Decisions to withdraw gasoline from the reserve are made under the authorities of the Energy Policy and Conservation Act (EPCA)¹⁴⁵. The U.S. Department of Energy has developed an online bidding system – an anonymous auction program – for the sale of product from the NGSR.</p>	<p>Guidelines on how and when heating oil can be released from the reserve are defined by the Energy Policy and Conservation Act. A Northeast Home Heating Oil Reserve Trigger Weekly Report developed by the Energy Information Administration is posted during heating oil season to monitor levels and track against the threshold of possible release.</p>
<p>Prospective bidders and other interested parties are invited to try the system and provide feedback to DOE.</p> <ul style="list-style-type: none">• You must register to use the system to practice or to participate in an actual emergency sale.• Registration assures that you will receive email alerts of sales or other pertinent news. You will also have the	<p>The U.S. Department of Energy has developed an online bidding system – an anonymous auction program – for the sale of product from the NEHHOR. Prospective bidders and other interested parties are invited to try the system and provide feedback to DOE.</p> <ul style="list-style-type: none">• You should review the Northeast Home Heating Oil Reserve (NEHHOR) Guidelines for Release¹⁴⁷.

¹³⁹ U.S. Department of Energy. Energy Waiver Library. https://energy.gov/oe/services/energy-assurance/response-and-restoration/energy-waiver-library?utm_source=2Q%202017%20Energy%20Security%20Committee%20Call%20%2806202017%29&utm_campaign=Energy%20Security%20Call%20Agenda%20120516&utm_medium=email#FMSCA

¹⁴⁰ U.S. Department of Energy. Northeast Gasoline Supply Reserve (NGSR). <https://energy.gov/fe/services/petroleum-reserves/northeast-regional-refined-petroleum-product-reserve>

¹⁴¹ U.S. Department of Energy. Creating the Northeast Gasoline Supply Reserve (NGSR). <https://energy.gov/NODE/1041666>

¹⁴² U.S. Department of Energy. Northeast Home Heating Oil Reserve (NEHHOR). <https://www.energy.gov/fe/services/petroleum-reserves/heating-oil-reserve>

¹⁴³ U.S. Department of Energy. Northeast Home Heating Oil Reserve (NEHHOR) History. <https://energy.gov/fe/northeast-home-heating-oil-reserve-nehhor-history>

¹⁴⁴ U.S. Energy Information Administration. Today in Energy. Northeast Home Heating Oil Reserve now focuses on New England. October 13, 2011. <https://www.eia.gov/todayinenergy/detail.php?id=3470>

¹⁴⁵ U.S. Department of Energy. Statutory Authority for an SPR Drawdown. <https://energy.gov/fe/statutory-authority-spr-drawdown>

¹⁴⁷ U.S. Department of Energy. Northeast Home Heating Oil Reserve (NEHHOR) Guidelines for Release. <https://energy.gov/fe/services/petroleum-reserves/heating-oil-reserve/northeast-home-heating-oil-reserve-guidelines>

<p>opportunity to establish a user ID and password to submit bids.</p> <ul style="list-style-type: none"> If you establish a user ID, you will receive a temporary password by email, which you must then change to one of your own choosing. <p>The online bidding system is available as a nonbinding demonstration. You can use the system to become more familiar with the bidding process in a realistic environment.</p> <p>DOE plans to run simulated one-day sales open to all interested registrants. When you register, you will receive email alerts describing simulations and providing more specific directions. To register or practice on the demonstration system, visit the Northeast Gasoline Supply Reserve Online Bidding System¹⁴⁶.</p>	<ul style="list-style-type: none"> You must register to use the system to practice or to participate in an actual emergency sale. Registration assures that you will receive email alerts of sales or other pertinent news. You will also have the opportunity to establish a user ID and password to submit bids. If you establish a user ID, you will receive a temporary password by email, which you must then change to one of your own choosing.
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f) EMERGENCY FUEL FROM THE DEFENSE LOGISTICS AGENCY¹⁴⁸

Background

The U.S. Department of Defense (DoD) through the Defense Logistics Agency (DLA)-Energy plays a role in fuel support to state and local authorities during disaster response through three funding/execution authorities: (1) existing contracts within the state in support of National Guard training/operations; (2) existing contracts from other locations in support of U.S. Northern Command disaster response; and (3) a contingency contract for gasoline/diesel in support of the Federal Emergency Management Agency.

DLA uses existing bulk fuel contracts to deliver and store energy products — primarily jet fuel, but also gasoline and diesel — at National Guard locations in every state other than Washington and New Mexico. Even though the bulk fuel is purchased and transported using federal funds, the storage at a National Guard location provides a well-established mechanism for direct sale of those products to the National Guard in support of state priorities. A second set of existing DLA contracts known as into-plane contracts can provide jet fuel to Army/Air National Guard aviation units at 340 civilian airports in 48 states (excluding Delaware and Vermont) using the Aviation Into-Plane Reimbursement (AIR) Card for payment/authorization. The contingency supply chains for jet fuel are very responsive with a FEMA mission assignment. It allows multiple locations and contract vehicles for procurement followed by federal military, National Guard, or commercial carriers to deliver. Without a FEMA mission assignment, the National Guard (in 48 states, Guam, Puerto Rico, and Virgin Islands) can deliver their jet fuel stored on hand directly to the point of need followed by resupply of their stocks by DLA.

In addition to fuel provided directly to the National Guard from locations served by existing DLA contracts, DLA can leverage existing fuel transportation resources — funding, marine tanker leases, and truck/barge/pipeline tender agreements — to reposition fuel stored at other DoD installations in support of any U.S. Northern Command disaster response. DLA can use this funding for fuel deliveries to resupply DoD or National Guard locations supported by existing DLA contracts. Additionally, they can supply fuel for new requirements created by military operations for disaster response, including active duty units and reserve forces, but excluding National Guard under state authorities.

When a presidential disaster declaration has been issued in an emergency situation that results in a response by FEMA, two additional options for fuel support become available. FEMA’s primary fuel operation during disasters is a contingency contract executed by DLA or procurement and truck

¹⁴⁶ U.S. Department of Energy. Northeast Gasoline Supply Reserve Online Bidding System. <https://refinedproduct.fossil.energy.gov>

¹⁴⁸ Information provided by the Defense Logistics Agency, Americas West DLA Energy.

delivery of gasoline and diesel in support of state/local first responders and humanitarian assistance during response efforts. DLA, FEMA, and the contingency contract provider will deploy to the designated staging base(s) to coordinate the assignment of transportation resources to fuel requirements that the state emergency operations center will identify to FEMA.

FEMA has a contract for up to 1,000 loaded fuel trucks to arrive in requested locations anywhere within 300 miles of a FEMA-designated incident staging base within 48 hours. The state would first need to make a determination that this assistance is needed and prepare and submit a request for assistance to FEMA. The time required for the state to do this would vary. A request for emergency fuel from a state to FEMA might take up to 24 hours to review and authorize. This would mean the total lead time from the submission of a state request to delivery would be about 72 hours. State and local officials will need to provide their requirements through FEMA and specify the type of fuel and volumes needed, and the available storage. If additional storage is necessary to support first responders, that requirement should also be identified through the respective state emergency operation center for sourcing through the National Guard, FEMA, or other appropriate agency.

The trucks have the pumps, nozzles, and couplers necessary for issuing truck-to-tank, truck-to-truck, or directly into automobiles. Assuming a truck capacity averaging 7,500 gallons, this could supply as much as 7.5 million gallons of fuel initially. Depending on the capacity of available tanker trucks, this estimate could be higher or somewhat lower. Fuel volume available at the terminals in the affected region, the distance of the terminal to staging area, and the distance of the staging area to the delivery site would all impact the overall volumes that might be initially supplied. Follow-on deliveries can occur more rapidly with the tank trucks already staged in the affected area and a long-haul supply already established under the contingency contract from the nearest operating terminal. During preparations for Hurricane Matthew in 2016, DLA staged a total of 75 trucks with approximate capacity of 7,500 gallons each at two locations in Georgia, half carrying diesel and half gasoline. FEMA's contingency contractor keeps the same trucks, trailers, and drivers (with spares as needed) for the duration of the emergency.

Aside from the contingency contract for gasoline and diesel support, FEMA may issue work orders under the Stafford Act (known as mission assignments) to DoD and DLA in order to provide state, tribal, or local governments with any other energy commodities, transportation assets, or storage capabilities necessary to save lives, protect property, or preserve public health or safety.

State-level entry points for DoD fuel support are National Guard units with existing DLA contracts and relationships, with the DLA personnel administering the contracts. Once FEMA assumes responsibility for the federal response, they become the agency with the authority to convert state/local fuel requirements into federal requirements that can be satisfied with DoD contracts and funding. States requesting this assistance would submit the initial request to FEMA.

States that would like to include this measure as part of their petroleum contingency plans will need to have the ability to assess the petroleum supply situation in a disaster, determine fuels and quantities needed and the delivery locations, and available storage capacities. This should be further discussed in advance as part of the planning activity with FEMA and DLA to make certain that requirements and response times and costs are all well understood along with the process for making these requests as part of the planning process.

B. REDUCING PETROLEUM DEMAND AND CONSERVING SUPPLY

In a fuel shortage, it is important to encourage consumers to voluntarily reduce their fuel use to help mitigate the impacts of the shortage. To the extent that fuel shortages are often characterized by substantial increases in prices, consumers will be further incentivized to reduce unnecessary fuel use. The more quickly this demand response takes place, the more quickly the price impacts might be minimized or reduced. This can best be achieved through voluntary public information programs that provide the public with ideas and ways they can curtail their fuel use. This could include issuing press releases, making information available on websites, outreach through social media, and public service announcements, to name a few tactics.

State Energy Assurance Guidelines¹⁴⁹ state: “A strong public information program is a key crisis management tool. Timely and accurate information helps prevent confusion and uncertainty and enlists public support and cooperation. Participants in effective public information programs include the Governor’s Office, state agencies, local governments, energy providers, local businesses, state legislature, and the federal government. It is essential to provide stakeholders and the public with information about the nature, severity, and duration of an emergency because inadequate understanding and awareness can lead to counterproductive reactions that may exacerbate the situation. Before state government can provide information to the public, it must gather information, describe the emergency accurately, and develop recommendations to manage the situation. It is assumed that state resources for these purposes would be more readily available during an emergency than in non-crisis times. Caution should be exercised to comply with state information protocols when receiving direct requests from the media.”

Since a considerable amount of fuel is used in the daily commute to work, programs such as ridesharing, vanpooling, telecommuting, and increased use of transit offer alternatives that might be encouraged. Improved vehicle maintenance including assuring tires are properly inflated and vehicles are properly tuned up can also improve the vehicle miles per gallon ratio.

If the fuel shortage is impacting primarily residential heating fuels such as propane and home heating oil, the public information programs should focus on home energy saving recommendations and preparing for winter by assuring residential fuel tanks are full prior to the beginning of the heating season. In a severe winter situation, warming shelters might be established at the local level and properly publicized. Use of warming shelters may be the primary responsibility within the state’s overall disaster plan that could fall under Emergency Support Function - 6 (Mass Care, Emergency Assistance, Temporary Housing and Human Services Annex)¹⁵⁰.

The more severe the fuel shortage, the more prices increase. Price spikes can cause hardship on consumers and represent some particularly significant challenges for low income residential customers. There are well-established programs provide heating assistance to low income consumers such as the home energy assistance program that also can make emergency payments under certain conditions. These programs should be detailed and described in the public information outreach for those eligible for this assistance.

¹⁴⁹ National Association of State Energy Officials. State Energy Assurance Guidelines, Version 3.1. Appendix F: Petroleum Fuel Set-Aside. December 2009.

http://www.naseo.org/Data/Sites/1/documents/energyassurance/eaguidelines/State_Energy_Assurance_Guidelines_Version_3.1.pdf

¹⁵⁰ Federal Emergency Management Agency. Emergency Support Function #6 – Mass Care, Emergency Assistance, Temporary Housing, and Human Annex. https://www.fema.gov/media-library-data/1470149820826-7bcf80b5dbabel58953058a6b5108e98/ESF_6_MassCare_20160705_508.pdf

Most states also have consumer protection laws, some of which may have provisions dealing with price gouging. Anti-price-gouging laws in some states prohibit charging a price in gross excess of the price for which similar products or services are sold. On the day of the 9/11 attack due some retail gas stations did post large price increases that were considerably more than other stations were charging at the time. This led to action by state attorney generals who either prosecuted or entered into consent agreements with the stations involved.

A number of states have price gouging laws that go into effect when an emergency is declared by the president or the governor. These provisions include language such as: *“Upon the proclamation of a state of emergency it is unlawful to charge any other person a price that is grossly in excess of the price charged for the same or similar goods or services in the usual course of business immediately prior to the events giving rise to the state of emergency.”*¹⁵¹ Other states may have the same provisions but allow for increases of up to 10 percent over pre-emergency pricing.

You should be aware of the current laws dealing with price gouging in your state and the enforcement mechanisms. Some public information programs used by states in the past not only provided information on the importance of conserving fuel supplies but also included information on price gouging and the contact information for the relevant state agency responsible for enforcement of these provisions. This also served as a means of informing fuel dealers of the state laws they are subject to. One of the action items from the after-action report¹⁵² on Hurricanes Gustav and Ike was *“Establish effective notification of an emergency declaration so that all retailers and wholesalers understand price gouging laws and their requirements and implications.”* This information could be included as part of the public outreach.

There is considerable information available on these topics on public websites. These resources should be identified in advance and enumerated within your plan. Draft press releases should be prepared in advance and included in your plan for both transportation and heating fuel emergencies to expedite action when needed.

Methods for public outreach should also be clearly identified, particularly those that are designed to reach motorists and homes utilizing propane or heating oil. These outreach methods should utilize various social media. The private sector can also be helpful partners in sharing these messages. For example, the insurer AAA has long made available tips on car maintenance¹⁵³; these pre-existing resources where available should be leveraged.

This activity should be aligned with the public information outreach efforts being used to inform people about the emergency and efforts to return conditions to normal to ensure unity of messaging. If in response to the emergency the state has established a joint information center, it might serve as a focal point for this activity in coordination with the ESF-12 designated state agencies.

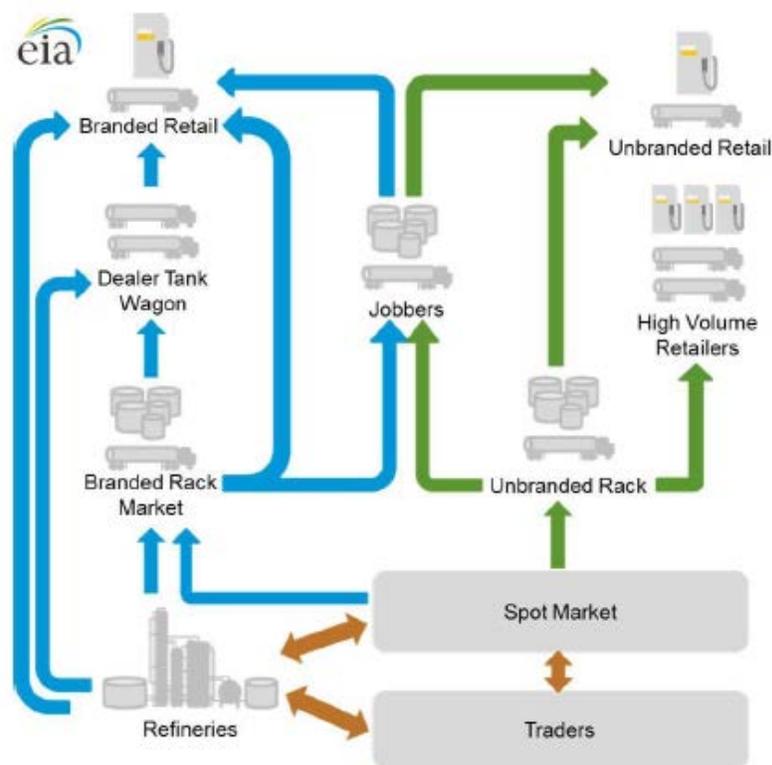
¹⁵¹ Tennessee, TCA 47-18-5101 et seq. <https://www.nga.org/files/live/sites/NGA/files/pdf/NAAGPriceGouging.pdf>

¹⁵² U.S. Department of Energy, et. al. Southeast Petroleum Disruption and After-Action Workshop Report, January 14-15, 2009. http://southeastpetroleum.govtools.us/documents/SoutheastPetroleumDisruption_Report.pdf

¹⁵³ AAA. Seasonal Car Maintenance. <http://exchange.aaa.com/car-care/repair-maintenance/seasonal-car-maintenance/#.Whyk1LaZOgx>

V. APPENDICES

APPENDIX A: DESCRIPTION OF STATES' PETROLEUM INFRASTRUCTURE AND SUPPLY CHAINS



Source: U.S. Energy Information Administration, California Strategic Reserve Study⁹

Identification of Physical Energy Infrastructures, Profiles, and Locations

Where do the energy supplies come from? How do supply logistics work? What are the quantifiable consequences of the loss of supply at both energy asset and systems levels? Developing an understanding of energy systems is fundamental to understanding consequences.

Information and Resources

U.S. Energy Information Administration

- *State Profiles and Energy Estimates* (<https://www.eia.gov/state/>)
Energy infrastructure state and regional energy supply and demand statistics.
- *State Energy Data System* (<https://www.eia.gov/state/seds/>)
Comprehensive state energy statistics.

- U.S. Energy Mapping System (<https://www.eia.gov/state/maps.php?src=home-f3>)
State and regional Maps of energy infrastructure data by select infrastructure types.
- Energy Explained: Your Guide to Understanding Energy (<https://www.eia.gov/energyexplained/>)
A 101 basic energy primer.
- Transportation Fuel Market Analysis
Supply, consumption, and distribution of transportation fuels in Petroleum Administration for Defense Districts.
 - East Coast and Gulf Coast Transportation Fuels Markets
(<https://www.eia.gov/analysis/transportationfuels/padd1n3/>)
 - West Coast Transportation Fuels Markets
(<https://www.eia.gov/analysis/transportationfuels/padd5/>)
 - Midwest and Rocky Mountain Transportation Fuels Markets
(<https://www.eia.gov/analysis/transportationfuels/padd2n4/>)
- Energy Disruptions (<http://www.eia.gov/special/disruptions/>)
Tracking and reporting on selected significant storms that impact or could potentially impact energy infrastructure. Includes past historical events reported on and real-time storm tracking with energy infrastructure maps.
- International Energy Data and Analysis (<https://www.eia.gov/beta/international/analysis.cfm>)
Data and analysis compiled by country and region.

Other Federal Resources

- U.S. Department of Energy United States Electricity Industry Primer
(<http://www.naseo.org/Data/Sites/1/documents/committees/energysecurity/documents/united-states-electricity-industry-primer.pdf>)
A 101 basic primer on the electricity industry.
- Federal Energy Regulatory Commission Seasonal Market Assessments Electricity and Natural Gas
(<https://www.ferc.gov/market-oversight/reports-analyses/reports-analyses.asp>)
Seasonal reports and analysis of electricity and natural gas markets.
- U.S. Census Bureau American Community Survey
(<https://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>)
Heating fuel used in homes by type, state, and county.

Other Resources

- National Petroleum Council Enhancing Emergency Preparedness for Natural Disasters
(http://www.npc.org/reports/2014-Emergency_Preparedness-lr.pdf)
See Appendix G (Hydrocarbon Liquids Supply Chain) and Appendix H (Natural Gas and Natural Gas Liquids Supply Chains).

- *American Petroleum Institute Oil and Natural Gas Industry Preparedness Handbook* (<http://www.api.org/news-policy-and-issues/safety-and-system-integrity/oil-gas-industry-preparedness-handbook>)
Describes critical elements of the oil and natural gas supply chains.
- *American Petroleum Institute Oil and Natural Gas Overview* (<http://www.api.org/oil-and-natural-gas>)
A 101 basic primer on natural gas and oil.

APPENDIX B: DATA AND METHODS FOR MONITORING PETROLEUM SUPPLY, DEMAND, AND PRICES

Information and Resources

U.S. Energy Information Administration

- *Short Term Energy Outlook* (<https://www.eia.gov/outlooks/steo/>)
Forecast of energy supply, demand, and prices.
- *Weekly Petroleum Status Report* (<https://www.eia.gov/petroleum/supply/weekly/>)
Information on U.S. petroleum balances, inputs and production and stocks by Petroleum Administration for Defense Districts.
- *Global Liquid Fuels* (https://www.eia.gov/outlooks/steo/report/global_oil.cfm)
Petroleum and other liquid fuels production and consumption forecasts.
- *U.S. Movements of Crude Oil by Rail* (<http://www.eia.gov/petroleum/transportation/>)
Information on movements of crude and select products by Petroleum Administration for Defense Districts.
- *Refinery Outages* (<http://www.eia.gov/petroleum/refinery/outage/>)
Examines planned U.S. refinery outages and the implications for available refinery production capacity, petroleum product markets, and the supply of gasoline, diesel fuel, and jet fuel.
- *Petroleum Supply Monthly* (<http://www.eia.gov/petroleum/supply/monthly/>)
Supply and disposition of crude oil and petroleum products on a national and regional level.
- *Petroleum Marketing Monthly* (<http://www.eia.gov/petroleum/marketing/monthly/>)
Monthly price and volume statistics on crude oil and petroleum products at a national, regional and state level.
- *Refinery Capacity Report* (<http://www.eia.gov/petroleum/refinerycapacity/>)
Fuel, electricity, and steam purchased for consumption at the refinery; refinery receipts of crude oil by method of transportation; and current and projected atmospheric crude oil distillation, downstream charge, and production capacities.
- *Refinery, Bulk Terminal, and Natural Gas Plant Stocks by State*
(http://www.eia.gov/dnav/pet/pet_stoc_st_dc_SIN_mbb1_m.htm)
- *Gasoline and Diesel Fuel Prices Weekly Update* (<http://www.eia.gov/petroleum/gasdiesel/>)
- *Working and Net Available Shell Storage Capacity* (<http://www.eia.gov/petroleum/storagecapacity/>)
Shows data for crude oil, petroleum products, and selected biofuels working and net available shell storage capacity by type of facility, product, and Petroleum Administration for Defense District.

- *U.S. Weekly Product Supplied* (http://www.eia.gov/dnav/pet/pet_cons_wpsup_k_w.htm)
Historical for petroleum and other liquid fuels in the U.S..
- *Prime Supplier Volume Sales* (http://www.eia.gov/dnav/pet/pet_cons_prim_dcu_nus_m.htm)
Historical trend for deliveries of petroleum products into states for final consumption.
- *Weekly Heating Oil and Propane Prices for October – March*
(http://www.eia.gov/dnav/pet/pet_pri_wfr_dcus_SNJ_w.htm)
States that participate in the State Heating Oil and Propane Price survey can find state and regional residential and wholesale propane and heating oil prices found at:

Other Federal Resources

- *National Oceanic and Atmospheric Administration Climate Outlooks*
(<http://www.cpc.ncep.noaa.gov/products/forecasts/>)
The Climate Prediction Center issues seasonal climate outlook maps for one to 13 months in the future.
- *National Oceanic and Atmospheric Administration Degree Days Statistics*
(http://www.cpc.ncep.noaa.gov/products/analysis_monitoring/cdus/degree_days/)
Population weighted heating and cooling degree days by state.
- *National Oceanic and Atmospheric Administration Space Weather Prediction Center*
(<http://www.swpc.noaa.gov/>)
Real time monitoring of solar conditions and forecasts.
- *National Oceanic and Atmospheric Administration Space Weather Scales*
(<http://www.swpc.noaa.gov/noaa-scales-explanation>)
Used to communicate current and future space weather conditions and their possible effects on people and systems to the general public.
- *Federal Energy Regulatory Commission Seasonal Market Assessments Electricity and Natural Gas*
(<https://www.ferc.gov/market-oversight/reports-analyses/reports-analyses.asp>)
Seasonal reports and analysis of electricity and natural gas markets.

Other Resources

- *OPIS Alerts* (<https://www.opisnet.com/product/news/>)
Subscription service for oil market news alerts and reports overview.
- *AAA Retail Gasoline Price Data* (<http://gasprices.aaa.com>)
Fuel Gauge Report by state and major cities.
- *Gas Buddy* (<http://www.gasbuddy.com/GasPriceMap?z=4>)
Ability to zoom down to individual retail gas stations.
- *International Energy Agency Oil Market Report* (<https://www.iea.org/oilmarketreport/omrpublic/>)

- *Sperry-Piltz Ice Accumulation Index* (<http://www.spia-index.com/>)
Ice accumulation and ice damage prediction index that combined with National Weather Service forecast data, predicts the projected footprint, total ice accumulation, and resulting potential damage from approaching ice storms. It is a tool to be used for risk management and/or winter weather preparedness.

APPENDIX C: RISK ASSESSMENTS (VULNERABILITIES, CONSEQUENCES, THREATS)

State and Regional Risk Profiles

The U.S. Department of Energy (DOE) developed a series of state and regional energy risk profiles¹⁵⁴ that examine the relative magnitude of risks at a regional and state level highlighting energy infrastructure trends and impacts. The profiles present both natural and man-made hazards with the potential to cause disruption of the electric, petroleum, and natural gas infrastructures.

These profiles provide a valuable foundation for states as a starting point for improvements to the depth of their energy sector risk assessment capabilities. This information along with risk assessments completed as part of state energy assurance planning, information from the supply disruption tracking process states were to have put in place as part of the state energy assurance plan, and state level historical hazards analysis can provide for a more comprehensive understanding of each state's risk profile.

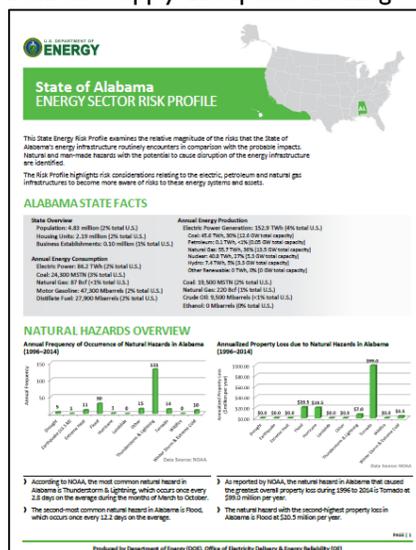
In 2015 DOE released the [Climate Change and the U.S. Energy Sector: Regional Vulnerabilities and Resilience Solutions](#)¹⁵⁵ to look at energy sector risk related to climate change that adds a further dimension to analysis.

The U.S. Department of Homeland Security (DHS) developed risk snapshots for each sector including energy which can be useful in further understanding energy sector risk as well as cross sector risk from interdependencies. The [Sector Risk Snapshots](#) report¹⁵⁶ provides a brief overview and risk profile of the 16 critical infrastructure sectors, including the electric, oil and natural gas subsectors).

In addition, DHS's [Risk Lexicon](#)¹⁵⁷ establishes and makes available a comprehensive list of terms relevant to the practice of homeland security risk management and analysis.

Other references on risk assessment and analysis include:

- [Comparing the Impacts of Northeast Hurricanes on Energy Infrastructure](#)¹⁵⁸
- [Hardening and Resiliency: U.S. Energy Industry Response to Recent Hurricane Seasons](#)¹⁵⁹
- [Comparing the Impacts of the 2005 and 2008 Hurricanes on U.S. Energy Infrastructure](#)¹⁶⁰



¹⁵⁴ U.S. Department of Energy. State and Regional Risk Profiles. <http://energy.gov/oe/state-energy-risk-assessment-initiative>
¹⁵⁵ U.S. Department of Energy. Climate Change and the U.S. Energy Sector: Regional Vulnerabilities and Resilience Solutions. October 2015. https://energy.gov/sites/prod/files/2015/10/f27/Regional_Climate_Vulnerabilities_and_Resilience_Solutions_0.pdf?utm_source=EnergyGuardian_email&utm_medium=email&utm_campaign=15444
¹⁵⁶ U.S. Department of Homeland Security. Sector Risk Snapshots. May 2014. <https://www.hsd.gov/?view&did=754033>
¹⁵⁷ U.S. Department of Homeland Security. DHS Risk Lexicon, 2010 Edition. September 2010. <https://www.dhs.gov/dhs-risk-lexicon>
¹⁵⁸ U.S. Department of Energy. Comparing the Impacts of Northeast Hurricanes on Energy Infrastructure. April 2013. https://www.oe.net.doe.gov/docs/Northeast%20Storm%20Comparison_FINAL_041513c.pdf
¹⁵⁹ U.S. Department of Energy. Hardening and Resiliency: U.S. Energy Industry Response to Recent Hurricane Seasons. August 2010. <https://www.oe.net.doe.gov/docs/HR-Report-final-081710.pdf>
¹⁶⁰ U.S. Department of Energy. Comparing the Impacts of the 2005 and 2008 Hurricanes on U.S. Energy Infrastructure. February 2009. <https://www.oe.net.doe.gov/docs/HurricaneComp0508r2.pdf>

- [An Assessment of Heating Fuel and Electricity Markets during the Winters of 2013-2014 and 2014-2015](#)¹⁶¹
- [The Economic Ramifications of Resource Adequacy White Paper](#)¹⁶²
- [Integrated Bulk Power System Risk Assessment Concepts](#)¹⁶³
- [Risk Based Criticality Analysis](#)¹⁶⁴
- [Risk Management Approach and Plan](#)¹⁶⁵

¹⁶¹ U.S. Department of Energy. An Assessment of Heating Fuels and Electricity Markets During the Winters of 2013-2014 and 2014-2015. October 2015. https://energy.gov/sites/prod/files/2015/10/f27/DOE_OE_Two%20Winters%20Report_Final_10.19.15.pdf

¹⁶² Eastern Interconnection States' Planning Council, et. al. The Economic Ramifications of Resource Adequacy White Paper. January 2013. <https://pubs.naruc.org/pub.cfm?id=536DBE4A-2354-D714-5153-70FEAB9E1A87>

¹⁶³ North American Electric Reliability Corporation. Integrated Bulk Power System Risk Assessment Concepts. http://www.nerc.com/comm/PC/Performance%20Analysis%20Subcommittee%20PAS%20DL/Archive/Integrated_Bulk_Power_System_Risk_Assessment_Concepts_Final.pdf

¹⁶⁴ Marianthi Theoharidou, et.al. Risk-Based Criticality Analysis. March 2009. <https://link.springer.com/book/10.1007/978-3-642-04798-5>

¹⁶⁵ The MITRE Corporation. Risk Management Approach and Plan. <https://www.mitre.org/publications/systems-engineering-guide/acquisition-systems-engineering/risk-management/risk-management-approach-and-plan>

APPENDIX D: EMERGENCY CONTACT LISTS

Emergency contact lists should be maintained and updated annually including any changes to the state's energy emergency assurance coordinator. They should also be updated at any time there is a significant change organizationally or in roles and responsibilities. Contact lists should not be included in the state energy assurance plan but maintained as a separate document or data file. It should be available electronically (document, spreadsheet or database files may be used) and in paper formats both in the office and at home for all key staff. These lists might also be maintained as part of any incident management software utilized by the state emergency operations center.

Since this listing may contain private or home telephone numbers, you should determine how this contact list might be exempt from disclosure under your state's freedom of information act and labeled accordingly as may be appropriate.

Contacts should be identified for the following groups and include name, title, office location (address), office phone number, cell phone, home phone or 24-hour contact number, email address and any alternate email, other communication devices including pagers and radio. Some of these points of contact need not be applicable to your state and there may be other points of contact not suggested here that you may wish to include.

1. Key state agency contacts that have a lead role for responding to petroleum shortages as defined within the state energy assurance plan. This might include and not be limited to:
 - a. Governor's energy advisor
 - b. State emergency management agency
 - c. State energy office
 - d. Public utilities commission
 - e. State air quality agency (or agency responsible for EPA waivers)
 - f. State fusion center, including critical infrastructure protection desk
 - g. Weights and measures division to the extent they have authorities relative to retail gas stations
 - h. State department of transportation
 - i. State chief cybersecurity office
2. The listing of the state's energy emergency assurance coordinators in the contact information for EEACs within the region that defines the state's petroleum supply chain.
3. Federal contacts:
 - a. U.S. Department of Energy Office of Electricity and Energy Delivery, Infrastructure Security and Energy Restoration: Matt Duncan, Program Manager, State, Local, Tribal, and Territorial (SLTT) Energy Assurance, Phone: 202.586.8828; Email: Matthew.Duncan2@hq.doe.gov.
 - b. U.S. Department of Energy, 24/7 Watch Office, Phone: 202.586.8100; Email: energyresponsecenter@hq.doe.gov
 - c. The Department of Energy ESF-12 regional contacts that can be found on the ISERnet listing with the EEACs.
 - d. Environmental Protection Agency for fuel waivers: The EPA Air Enforcement Division 202.564.2260 or the Compliance Division: Kurt Gustafson at: 202.403.4419; Email:

gustafson.kurt@epa.gov or Madison Le at: 202.507.3062. EPA can be reached Monday through Friday, 8 a.m. to 5 p.m. ET to obtain information about any fuel waiver request. Outside of these times, the EPA Emergency Operations Center can be contacted at: 202.564.3850.

- e. Federal Motor Carrier Safety Administration State and Regional Administrators Contacts. The FMCSA has a toll-free hotline at: 877.831.2250 for anyone seeking inquiries pertaining to FMCSA regulations during a declared disaster.
- f. Pipeline and Hazardous Materials Safety Administration requests for emergency special permits should be directed to PHMSA's office of pipeline safety at: 202.366.4595; Email: phmsa.pipeline-emergencyspecpermit@dot.gov.
- g. Coast Guard captain of the port.
- h. The National Weather Service for current watches and warnings, and cooling and heating degree day information.

4. Energy Industry Contacts

- a. The state office of the American Petroleum Association (not all states have a state office).
- b. The state association representing petroleum jobbers and distributors.
- c. The state association representing retail gasoline dealers.
- d. The state association representing oil and gas producers.
- e. A list of all prime suppliers of petroleum products to your state. The prime supplier contacts can be obtained from the company respondents list for the 782c form from EIA by contacting Maureen Klein at: maureen.klein@eia.gov or 202.586.8013.
- f. Refineries in the state or that serve as important suppliers to the state.
- g. Petroleum product pipeline operators within the state or that supply significant quantities to the state.

APPENDIX E: FEDERAL AUTHORITIES AND DIRECTIVES FOR ENERGY EMERGENCIES AND PETROLEUM SHORTAGES

Authorities and Directives Affecting Multiple Segments of the Energy Sector

<p>Homeland Security Presidential Directive 5 (HSPD-5)</p>	<p>This directive enhances the ability of the United States to manage domestic incidents by establishing a single, comprehensive national incident management system. It requires all federal departments and agencies to cooperate with the secretary of Homeland Security by providing their full and prompt cooperation, resources, and support as appropriate and consistent with their own responsibilities for protecting the nation’s security. The directive provides for federal assistance to state and local authorities when their resources are overwhelmed, or when federal interests are involved.</p>
<p>Presidential Policy Directive 21 - Critical Infrastructure Security and Resilience</p>	<p>This directive establishes national policy on critical infrastructure security and resilience. The directive also refines and clarifies critical infrastructure-related functions, roles, and responsibilities across the federal government. The directive identifies 16 critical infrastructure sectors, names sector-specific agencies to oversee each sector, including the department of Energy as the sector specific agency for the energy sector. This directive revoked HSPD-7, but stated that plans developed pursuant to HSPD-7 would remain in effect until specifically revoked or superseded.</p>
<p>Protected Critical Infrastructure Information (PCI) Program of the Critical Infrastructure Information (CII) Act of 2002, 6 U.S.C. §§ 131-134</p>	<p>The PCI Program, established pursuant to the CII Act, creates a framework that enables members of the private sector to voluntarily submit sensitive information to the Department of Homeland Security regarding the nation’s critical infrastructure with the assurance that the information, if it satisfies the requirements of the CII Act, will be protected from public disclosure. To implement and manage the program, DHS has created the PCI Program Office within DHS’s National Protection and Programs Directorate. The PCI Program Office or other federal agencies designated by the PCI program manager can receive critical infrastructure information to be validated as PCI if such information qualifies for protection under the CII Act. On September 1, 2006, DHS issued a final rule on procedures for handling critical infrastructure information.</p>
<p>Chemical Facility Anti-Terrorism Standards (CFATS), 6 C.F.R. Part 27</p>	<p>In Section 550 of the Department of Homeland Security Appropriations Act of 2007, Public Law 109-295, Congress gave DHS the authority to require high-risk chemical facilities to complete vulnerability assessments, develop site security plans, and implement protective measures necessary to meet DHS defined performance standards. In accordance with this authority, on April 2, 2007, DHS released the Chemical Facility Anti-Terrorism Standards as an interim final rule.</p> <p>Through the CFATS, DHS established risk-based performance standards for the security of the nation’s chemical facilities. CFATS requires covered chemical facilities to prepare security vulnerability assessments (SVA), which identify facility security vulnerabilities, and to develop and implement site security plans, which include measures that satisfy the identified risk-based performance standards. It also allows certain covered chemical facilities, in specified circumstances, to submit alternate security programs in lieu of an SVA, site security plan, or both.</p> <p>CFATS also contains associated provisions addressing inspections and audits, recordkeeping, and the protection of information that constitutes chemical-terrorism vulnerability information (CVI). Finally, the rule provides DHS with authority to seek</p>

	<p>compliance through the issuance of orders, including orders assessing civil penalty and orders for the cessation of operations.</p>
<p>Defense Production Act (DPA) of 1950, as amended, 101(a), 101 (b), 101(c), and 708 (50 U.S.C. 2071 (a), (c), and 2158)</p>	<p>The secretaries of the energy and commerce departments have been delegated the president’s authorities under sections 101(a) and 101(c) of DPA to require the priority performance of contracts or orders relating to materials (including energy sources), equipment, or services, including transportation, or to issue allocation orders, as necessary or appropriate for the national defense or to maximize domestic energy supplies. DPA section 101(a) permits the priority performance of contracts or orders necessary or appropriate to promote the national defense. “National defense” is defined in DPA section 702(13) to include “emergency preparedness activities conducted pursuant to title VI of the Robert T. Stafford Disaster Relief and Emergency Act and critical infrastructure protection and assurance.”</p> <p>The secretary of Energy has been delegated (Executive Orders 12919 and 11790) the DPA section 101(a) authority with respect to all forms of energy. The secretary of the Department of Commerce (DOC) has been granted (Executive Order 12919) the section 101(a) authority over most materials, equipment, and services relevant to repair of damaged energy facilities. Section 101(c) of the DPA authorizes contract priority ratings relating to contracts for materials (including energy sources), equipment, or services in order to maximize domestic energy supplies, if the secretaries of commerce and energy, exercising their authorities delegated by Executive Order 12919, make certain findings with respect to the need for the material, equipment, or services for the exploration, production, refining, transportation, or conservation of energy supplies.</p> <p>The DPA priority contracting and allocation authorities could be used to expedite repairs to damaged energy facilities, and for other purposes, including directing the supply or transportation of petroleum products, to maximize domestic energy supplies, meet defense energy needs, or support emergency preparedness activities. In the case of both section 101(a) and 101(c) authorities, if there are contracts in place between the entity requiring priority contracting assistance and one or more suppliers of the needed good or service, DOE (with respect to the section 101(c) authority) or DOC (with respect to the section 101(a) authority) would issue an order requiring suppliers to perform under the contract on a priority basis before performing other non-rated commercial contracts. If no contracts are in place, DOE or DOC would issue a directive authorizing an entity requiring the priority contracting assistance to place a rated order with a supplier able to provide the needed materials, equipment, or services. That contractor would be required to accept the order and place it ahead of other nonrated commercial orders.</p> <p>Section 101(b) provides authority to facilitate transportation of energy supplies during an emergency by requiring pipelines, marine terminals, and other facilities to execute transportation contracts to promote national defense. The authority to control the general distribution of petroleum supplies in the civilian market can be used if a finding is made that supplies are “scarce and critical” and defense needs cannot be met without causing dislocations that will create appreciable hardship.</p> <p>DPA section 708 provides a limited antitrust defense for industry participating in voluntary agreements “to help provide for the defense of the United States through the development of preparedness programs and the expansion of productive capacity and supply beyond levels needed to meet essential civilian demand in the United States.” In the event of widespread damage to energy production or delivery systems, this authority, for example, could be used to establish a voluntary agreement of service companies to coordinate the planning of the restoration of the facilities.</p>
<p>Robert T. Stafford Disaster Relief and Emergency</p>	

<p>Assistance Act, as amended, 42 U.S.C. 5121 et seq.</p>	<p>The Federal Emergency Management Agency, following a presidential declaration of emergency or major disaster, provides assistance and may require other federal agencies to provide resources and personnel to support state and local emergency and disaster assistance efforts. Requests for a presidential declaration of an emergency or major disaster must be made by the governor of the affected state based on a finding by the governor that the situation is of such severity and magnitude that effective response is beyond the capabilities of the state. DOE supports DHS/FEMA relief efforts by assisting federal, state, and local government and industry with their efforts to restore energy systems in disaster areas. When necessary, DOE also may deploy response staff to disaster sites. DOE is the lead agency directing Emergency Support Function-12 (Energy), which assists the restoration of energy systems and provides an initial point of contact for the activation and deployment of DOE resources. These activities are performed pursuant to the Stafford Act and HSPD-5 (Management of Domestic Incidents) and National Response Plan.</p>
<p>Executive Order 11912, Department of Energy Organization Act, Sections 102 and 203 (42 U.S.C. 7112, 7133); Energy Policy and Conservation Act, Sections 251-254 (42 U.S.C. 6271-6274); Agreement on an International Energy Program (IEP)</p>	<p>DOE and the Department of State share responsibility for U.S. participation in the energy emergency preparedness activities of the International Energy Agency. IEA, consisting of 26 member countries, was established by IEP following the 1973 oil crisis with the goal of developing and maintaining cooperative oil emergency response policies and programs. DOE leads U.S. participation in IEA's oil emergency response programs. The Department develops plans for U.S. emergency response actions, develops the U.S. position on an appropriate international response, and makes recommendations for action to the president.</p>
<p>Section 27 of the Merchant Marine Act of 1920, as amended (Jones Act), 46 U.S.C. 883</p>	<p>Public Law 81-891(64 Stat. 1120) directs the secretary of Homeland Security to waive the provisions of section 27 of the Merchant Marine Act of 1920 (Jones Act) that requires the use of U.S.-flag, U.S.-built, and U.S.-crewed vessels in coastwise trade, upon the request of the secretary of Defense to the extent the secretary of Defense deems necessary in the interest of the national defense. Public Law 81-891 authorizes the secretary of Homeland Security to waive compliance with the Jones Act either upon his own initiative or upon the written recommendation of the head of another agency whenever the secretary determines that waiver is necessary in the interest of the national defense. In the event of a drawdown of SPR, the president may direct the secretary of Homeland Security to waive the Jones Act, if the volume of crude oil to be moved is significantly greater than the capacity of the existing, available U.S.-flag "Jones Act" crude oil tanker fleet. Interagency procedures have been established to expedite actions on Jones Act waiver requests during a petroleum supply disruption.</p>
<p>Interstate Commerce Commission Termination Act of 1995 (Pub. L. No. 104-88, 109 Stat. 803)</p>	<p>This authorizes the Surface Transportation Board and the DOT to issue priority orders during an emergency situation for rail movement of commodities including petroleum. (49 U.S.C. Section 11123).</p>
<p>Federal Motor Carrier Safety Administration 49 C.F.R. 390.23</p>	<p>This provides for waiver of federal motor carrier safety regulations to provide emergency relief during a regional or local emergency declared by the president, governor of a state, or the regional director of motor carriers. An emergency is defined to include natural disasters, explosions, blackouts or other occurrences, natural or man-made, which interrupt the delivery of essential services such as electricity, medical care, sewer, water, telecommunications and telecommunications transmission, or essential supplies such as food and fuel, or otherwise immediately threaten human life or public welfare. For example, the waivers may exempt motor carriers and drivers from limits on on-duty hours when providing direct assistance in such emergencies and provides exemptions from inspections, record keeping, hazardous materials, and other requirements.</p>

<p>Department of Energy Organization Act, Section 205 and Federal Energy Administration Act of 1974, Sections 51 to 59</p>	<p>U.S. Department of Energy, the National Association of State Energy Officials, the National Association of Regulatory Utility Commissioners, and the National Emergency Management Association agreed that DOE and states will develop, maintain, and distribute a contact list of state and federal individuals responsible for energy market assessment and energy emergency responses. The states and DOE will participate in the effort by sharing timely assessments of energy markets with DOE and other states in the event of an energy supply disruption. In support of this effort, each state identified one or more energy emergency assurance coordinators.</p>
<p>Community Opportunities, Accountability and Training and Educational Services Act of 1998, Title III, Sec. 301-309, and the Low Income Home Energy Assistance Act of 1981</p>	<p>The U.S. Department of Health and Human Services (HHS) can make the Low-Income Home Energy Assistance Program emergency contingency funds available to help eligible low-income households meet their home heating and/or cooling needs arising from a natural disaster or other emergency such as extremely high energy prices. DOE may advise HHS on the fuel supply situation for such emergency funding.</p> <p>In addition to the availability of discretionary emergency funds, HHS also annually awards energy assistance block grants to the 50 states, the District of Columbia, eligible Indian tribes/tribal organizations, and insular territory areas, which in turn make payments directly to eligible households to help meet the costs of home energy.</p>
<p>Ports and Waterways Safety Act, Natural Gas Pipeline Safety Act, and the Hazardous Liquids Pipeline Safety Act, 33 U.S.C. 1221 et seq.</p>	<p>The Ports and Waterways Safety Act authorizes the secretary of Transportation to establish vessel traffic systems for ports, harbors, and other navigable waters and to control vessel traffic in areas determined to be hazardous (e.g., because of conditions of reduced visibility, adverse weather, vessel congestion, etc.). (33 U.S.C. 1223).</p> <p>Two statutes provide the framework for the federal pipeline safety program. The Natural Gas Pipeline Safety Act of 1968 as amended authorizes DOT to regulate pipeline transportation of natural (flammable, toxic, or corrosive) gas and other gases as well as the transportation and storage of liquid natural gas (LNG). Similarly, the Hazardous Liquid Pipeline Safety Act of 1979 as amended authorizes DOT to regulate pipeline transportation of hazardous liquids (crude oil, petroleum products, anhydrous ammonia, and carbon dioxide). Both of these acts have been recodified as 49 U.S.C. Chapter 601. The federal pipeline safety regulations: (1) assure safety in design, construction, inspection, testing, operation, and maintenance of pipeline facilities in the location, construction, operation, and maintenance of LNG facilities; (2) set parameters for administering the pipeline safety program; and (3) delineate requirements for onshore oil pipeline response plans. The regulations are written as minimum performance standards.</p> <p>The Magnuson Act (50 U.S.C. 191 et seq.) directs the secretary of Transportation to issue regulations governing the movement of any vessel within U.S. territorial waters upon a presidential declaration of a national emergency by reasons of actual or threatened war, insurrection or invasion, or disturbance or threatened disturbance of the international relations of the United States (50 U.S.C. 191).</p>
<p>Maritime Transportation Security Act (MTSA), Public Law 107-295, 46 U.S.C. 2101</p>	<p>MTSA, which amended the Merchant Marine Act of 1936, requires implementation of regulations for improving the security of ports, waterfront facilities, and vessels, including those involved with the oil and gas sectors. Most energy sites with waterfront facilities are impacted by MTSA and must conduct vulnerability assessments and develop security plans to be approved by the U.S. Coast Guard (USCG).</p>

<p>Aviation and Transportation Security Act (ATSA), Public Law 107-71, 115 Stat. 597, November 19, 2001</p>	<p>As established by ATSA, TSA is responsible for security in all modes of transportation. The six modes of transportation include mass transit, aviation, maritime, highway, rail, and pipeline systems. As further noted in NIPP, TSA is the sector specific agency (SSA) for all modes of transportation except maritime, for which the USCG is the SSA.</p>
<p>Federal Energy Management Program (FEMP)</p>	<p>The U.S. Department of Energy's Federal Energy Management Program works to reduce the cost and environmental impact of the federal government by advancing energy efficiency and water conservation, promoting the use of distributed and renewable energy, and improving utility management decisions at federal sites. In a severe emergency, the president may order increased conservation in federal facilities and operations, including the federal vehicle fleet. The FEMP helps federal agencies reach their energy savings goals by aggressively raising awareness of energy efficiency activities and making it easier for agencies and utilities to save energy and money.</p>

Authorities Affecting Petroleum

<p>Energy Policy and Conservation Act, Sections 151-180, 42 U.S.C. 6231-6251</p>	<p>Sections 151-191 of EPCA authorize DOE to establish and operate the Strategic Petroleum Reserve (SPR). Section 161(d)(1) authorizes the president to order drawdown and sale of products from the SPR upon a finding that drawdown is required either by a “severe energy supply interruption” or obligations of the United States under the agreement on an International Energy Program (42 U.S.C. 6241(d)(1)).</p> <p>Section 161(h) empowers the president to drawdown the SPR in circumstances other than a “severe energy supply interruption” or a need to meet U.S. obligations under IEP, if the president finds that a circumstance “exists that constitutes, or is likely to become, a domestic or international energy supply shortage of significant scope and duration” and the president determines that drawdown “would assist directly or significantly in preventing or reducing the adverse impact of such a shortage” and the secretary of Defense has found that the action taken will not impair national security. However, there are several limitations on the use of this authority: The reserve may not be drawn down for more than 30 million barrels or for longer than 60 days with respect to a single event, or if the reserve would be reduced below the level of 500 million barrels (42. U.S.C. 6241(h)). EPCA gives the president authority to authorize the export of crude oil withdrawn from the SPR during a drawdown for refining or exchange outside the United States in connection with an arrangement for the delivery of refined petroleum products to the United States (42. U.S.C. 6241(i)). In recognition of this authority, DOC has provided for automatic approval for export of SPR oil for these purposes in its Export Administration Regulations at 15 CFR Part 754.</p> <p>The sale of oil withdrawn from the SPR would be in accordance with the SPR competitive sales procedures in 10 CFR Part 625.</p>
<p>Energy Policy and Conservation Act, Sections 181-184, 42 U.S.C. 6250-6250c</p>	<p>Pursuant to section 181 of EPCA, 42 U.S.C. 6250, the secretary established and maintains a two-million-barrel home heating oil reserve in the Northeast. This reserve is not part of the SPR. The secretary may sell products from the Northeast Home Oil Reserve dependent on a presidential finding that there is a “severe energy supply interruption” in accordance with section 183(a) of the EPCA, based upon a finding that a dislocation in the heating oil market has resulted from such interruption or the existence of a regional supply shortage of significant size and duration, and that action under this section would assist directly and significantly in reducing the adverse impact of such shortage.</p>
<p>Energy Policy and Conservation Act, Section 363, 42 U.S.C. 6322(e)</p>	<p>To be eligible for financial assistance to assist in the development and implementation of energy conservation plans, a state must submit to the secretary of Energy, as a supplement to its energy conservation plan, an energy emergency planning program for an energy supply disruption as designated by the state consistent with applicable federal and state law. The contingency plan “shall include an implementation strategy or strategies (including regional coordination) for dealing with energy emergencies.”</p>

Additional Resources

<p>National Infrastructure Protection Plan</p>	<p>PPD-21 directed DHS to update the National Infrastructure Protection Plan. The NIPP is designed to create “a national unity of effort to achieve critical infrastructure security and resilience.” Its “Call to Action” section “guides the collaborative efforts of the critical infrastructure community to advance security and resilience under three broad activity categories: building upon partnership efforts; innovating in managing risk; and focusing on outcomes.”</p>
<p>Energy Sector Specific Plan</p>	<p>Within the NIPP framework, the Energy Sector Specific Plan “help[s to] guide and integrate the sector’s continuous effort to improve the security and resilience of its critical infrastructure and to describe how the energy sector contributes toward the national critical infrastructure security and resilience goals.” Acknowledging that “security and resilience efforts are a shared responsibility between the government and industry” given widespread private sector ownership of energy infrastructure, the plan specifically implements items from the NIPP call to action. The Department of Energy, as the SSA for the energy sector, led development of the most recent plan.</p>
<p>Energy Sector Cybersecurity Framework Implementation Guidance</p>	<p>The Department of Energy released this guidance to help the energy sector establish or align existing cybersecurity risk management programs to meet the objectives of the Cybersecurity Framework released by the National Institutes of Standards and Technology in February 2014. The voluntary Cybersecurity Framework consists of standards, guidelines, and practices to promote the protection of critical infrastructure and was developed in response to Executive Order 13636. In developing the guidance, the Department collaborated with private sector stakeholders through the Electricity Subsector Coordinating Council and the Oil & Natural Gas Subsector Coordinating Council, and worked with other SSA representatives and interested government stakeholders.</p>

