# REGIONAL PETROLEUM SHORTAGE RESPONSE

# COLLABORATIVE DEVELOPMENT GUIDE

September 30, 2021









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# BACKGROUND

During a Western States Petroleum Shortage Response Planning Workshop hosted by National Association of State Energy Officials (NASEO) and National Emergency Management Association (NEMA) and supported by the United States (US) Department of Energy (DOE) Office of Cybersecurity, Energy Security, and Emergency Response (CESER), state participants identified the need for closer coordination and collaboration throughout their region. Participants expressed interest in developing a regional catastrophic fuel response framework. In 2019, NASEO and NEMA, with the support of DOE CESER and Hagerty Consulting, initiated the creation of a regional collaborative of western state energy and emergency management officials. The collaborative built upon the challenges and lessons learned from previous petroleum shortages and focused on the need for regional collaboration in widespread petroleum shortages, regardless of cause. This effort established the Western Petroleum Shortage Response Collaborative (WPSRC) to develop a regional petroleum shortage response framework across a subset of western states'<sup>1</sup> emergency management and energy offices. Establishing similar collaboratives is encouraged so that states can work together and share resources to address state and regional petroleum shortage preparedness and response needs.

This guide provides a roadmap for other regions seeking to form their own collaborative. It includes examples of actions and decisions taken by the WPSRC; future collaborates may use these examples to establish their own structure and framework for collaboration and to enhance coordination and response to petroleum shortage emergencies among participating states. Like the WPSRC, future collaboratives should also reference the NASEO Guidance for States on Petroleum Shortage Response Planning, along with its supporting materials

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<sup>&</sup>lt;sup>1</sup> WPSRC states are Alaska, Arizona, California, Colorado, Idaho, Montana, Nevada, Oregon, Utah, Washington, and Wyoming.



# PLANNING GROUP COORDINATION AND INITIAL FRAMEWORK DEVELOPMENT

The purpose of the WPSRC framework is to codify guidance for coordinated response, prioritize response actions and measures, standardize information flows, and pre-identify tools and templates that may be necessary to respond to a petroleum shortage. Below is a suggested process that regions may utilize in forming their own collaboratives and frameworks. These processes can be customized to meet regional needs.

#### **STEPS FOR FRAMEWORK DEVELOPMENT:**

- Form a planning group of stakeholder states and establish information sharing.
- Assess current response planning efforts and identify programs and measures that can be implemented throughout the region.
- Define regional response coordination and essential elements of information (EEIs) and adopt processes into individual state plans.

#### FORM THE PLANNING GROUP

The first step in achieving regional coordination should be to establish a planning team consisting of stakeholder states within the applicable Petroleum Administration for Defense Districts (PADDs) as defined by the US Energy Information Administration (EIA). Representatives should include both state emergency management offices and state energy offices. The establishment of this planning group is likely to begin with one or two states who opt to champion, or lead, the effort.

#### PLANNING GROUP RESPONSIBILITIES:

- Oversee the development of the regional framework.
- Facilitate planning group meetings and stakeholder coordination calls.
- Identify and develop procedures to ensure periodic updates and continuation of the group.
- Engage industry partners, non-profit organizations, and federal agencies for guidance or assistance.





#### **PARTICIPANT RESPONSIBILITIES:**

- Share the status of their state's planning and response efforts.
- Engage in information sharing with other member states.
- Provide insight into their state's processes and procedures.

### **DEVELOP COLLABORATIVE INFORMATION SHARING MECHANISMS**

#### **STEPS FOR ESTABLISHING INFORMATION SHARING:**

- 1. Select a collaboration platform that all states have access to.
- 2. Create a distribution list or mailing group.
- **3.** Establish regular coordination calls.

The region should develop and adopt a process for gaining fuel sector awareness and for sharing information across participating states. Fuel sector awareness within the region promotes more effective information sharing and increased coordination and response activities. The creation of a centralized platform serves as an effective method for gaining and maintaining situational awareness between members of the collaborative. Annually, the state that has taken ownership of leading the effort should review and update a contact list of all stakeholders and any corresponding parties.

The planning group should also hold regular coordination calls focusing on the challenges that each state may face to increase situational awareness across the region and to serve as a method of improving coordination across the planning group. Additional information on these coordination calls can be found in the <u>Coordination Calls</u> section of this guide.



# ASSESS THE CURRENT STATE OF PETROLEUM SHORTAGE RESPONSE PLANNING

#### **GOAL:**

The goal of assessing the current state of petroleum shortage response planning is to fully understand what programs and measures each state currently has in their plans.

These programs and measures are actions designed to respond to specific circumstances and consequences that can occur during fuel shortages.

To improve coordination in responding to petroleum shortages, states first need to define and share the current status of their petroleum response plans or energy security plans. States also need to discuss what they want to achieve as a region and the contexts in which they agree to coordinate. <u>Appendix B</u> includes the survey the WPSRC used to gather this information and begin the conversation.

### **Identifying Regional Priorities**

Initial meetings among the planning group should focus on identifying priorities, best practices, strengths, key considerations, and areas for improvement in each state's existing plans. In addition to streamlining the region's best practices based on each state's plans, the region should also set the threshold for coordinating with external entities such as NEMA, NASEO, and DOE for supplemental assistance beyond what can be accomplished within the region. Finally, states should recognize that petroleum suppliers that operate across multiple states will benefit from having plans that are more consistent across state lines, which will in turn help them facilitate the recovery process.

Next, the region should consider holding scenario-based discussions to expand on what regional coordination may look like once the framework is developed and coordination is established. This helps the region identify shared priorities, understand its status, and determine what works across various states according to the scenario. With this information, states can then speak to any impediments their current policies or procedures may present for coordination across the region. Appendix B also includes sample information for these scenario-based discussions from the structure the WPSRC used to collaborate and develop their framework.



# IDENTIFY PROGRAMS AND MEASURES FOR REGIONAL IMPLEMENTATION

After defining the current status, the planning group needs to adopt policies to manage their states' use of petroleum in the event of an emergency event or incident. Framework development across the region must include discussions about what types of programs and measures each state is willing to implement to support response and recovery from the incident. Regions may use the sample information in <u>Appendix</u> <u>B</u> as a template and adjust as needed for their specific regional requirements. Regions may reference the <u>NASEO Guidance for States on Petroleum Shortage Response Planning</u> for additional information on the recommended programs and measures.

As the discussions mature, the region must collaborate to determine what subset of those programs and measures are universal and will likely be implemented multilaterally across the region. This synchronization of efforts prevents adverse impacts to other states if only one or two states implement a particular program or measure. This also streamlines the response and recovery across the region utilizing similar processes.

#### **PROGRAMS AND MEASURES:**

The NASEO Petroleum Response Guidance describes **programs** as templates states can use that may provide a level of detail that allows for more efficient and rapid implementation of the actions identified. **Measures** as described in the guidance do not have the same level of detail; states that wish to include these actions within their plan are encouraged to emulate the level of detail found in the program description based on the circumstances within their states.

# **DEFINE REGIONAL RESPONSE COORDINATION**

To coordinate their response to a petroleum shortage event, states need to align their decision-making protocols, priorities, and implementation. Synchronizing state approaches creates consistency and streamlines the response process for suppliers operating in multiple states.

States' implementation of coordinated regional response actions is voluntary. States only initiate coordinated actions when two or more states in the region face a petroleum shortage and those states agree that a coordinated regional approach is mutually beneficial. In each state, this should be done using the existing pre-established decision-making authorities and processes described in emergency response plans. The following section highlights state-level and regional decision-making processes necessary for coordinated response across impacted and non-impacted states in the region.



### **Triggers and Thresholds for Regional Coordination**

The onset or anticipation of a petroleum shortage emergency triggers a coordinated situational assessment and information-sharing process across affected states, led by the primarily impacted state. If a state is solely impacted, the state's energy security plan may be implemented as needed. However, if the event has impacted or will impact multiple states, a conference call should be held to determine the impacts of the event and whether joint action is or may be necessary. If joint action is needed, approval from the states' governors may be required prior to implementing the programs and measures put in place for a coordinated response. Should these programs and measures prove to be effective, they will be monitored and in effect until the petroleum shortage stabilizes. In the case that they are not successful, additional programs and measures should be considered.

This guide recommends following some of the same processes that the WPSRC agreed to use, which are detailed below. There are some initial actions agreed to by all states within the region; then, the states review several questions for determining the path forward for coordination across the region. Once a disruption that shifts states out of normal procedures is determined to have occurred, the designated state staff should be notified, and requisite personnel should verify the severity and scope of the disruption. Following that, should a region decide to follow the WPSRC model, the affected state should:

- Communicate event information vertically through agency leadership, identify supply impacts with petroleum industry partners, and verify operating conditions with trade association partners.
- Contact neighboring states for situational awareness and assessment.

Once the affected state has undertaken those actions, the states may consider the following process, which outlines how the WPSRC agreed to assess the situation in the event of an incident and determine the ideal coordinated response:

#### Does this event impact multiple states?

If the answer is **yes**, impacted states should convene the collaborative member states in a conference call to identify the scope of impacts and consider aligning response actions. Additional support from NASEO will be available, if requested.







#### Should joint action be taken?

If the answer is <b>yes</b> , impacted states should align needs If the answe	r is <b>no</b> , impacted states should implement	
and capabilities to determine which their international	I energy security plan without regional	
programs/measures to enact and the processes coordination	, but maintain communication with	
required to do so. member states about the situation and actions taken.		

# Do the identified programs and measures require the governor's (or delegate's) approval for implementation?

If the answer is **yes**, impacted states should follow their respective procedures for obtaining gubernatorial (or other) approval on the selected programs and measures.

If the region's processes must differ from the above steps, the region should consider using this as a baseline and developing their own key questions and requisite steps for addressing coordination in the event of a disruption to the petroleum supply across the region. See <u>Appendix E</u> for a graphic outlining the WPSRC's decision-making process, which a region can use as a template or baseline when developing a process for their framework.

### **Petroleum Shortage Coordination Call**

During a petroleum shortage that necessitates coordination with regional partners, the impacted state(s) may decide to convene a conference call with the regional partners to share information on the current situation, assess potential downstream impacts, and identify any support the non-impacted states can provide. This guide recommends that the region should, while developing its respective framework, emphasize the importance of the coordination calls, any associated template agendas, and likely attendees to establish strong coordination during an incident. If the region decides not to utilize a formal call, it should establish an alternate means of iterative communication during a petroleum shortage to guarantee a common operating picture and understand each state's respective response actions across the region. Appendix D includes sample language and an agenda for this coordination call to assist future regions with developing their processes and streamlining this effort were an incident to occur that necessitates this effort.



# **IDENTIFY ESSENTIAL ELEMENTS OF INFORMATION**

Essential Elements of Information (EEIs) are critical pieces of information required to carry out response processes with optimal situational awareness. Individual regions utilizing this guide should identify their own EEIs as part of their framework development. Below are examples for consideration:

- Knowledge of critical infrastructure impacted by the disruption
- Awareness of alternative supply sources that could re-supply the impacted region
- Base stock levels of fuels in the impacted region
- Assessment and short-term energy market forecasts
- State and regional energy risk profiles
- State and regional gasoline and diesel fuel prices—price increases prior to any disruption may indicate a tight supply market
- Refinery and pipeline operating conditions (via relationships and reports)
- Heating and cooling degree days
- Weather data, to the degree it impacts demands
- Heating fuel reports

The region should establish a baseline of key data elements to monitor petroleum markets, gauge conditions that are relevant for the respective stakeholders, and ensure the framework lists out the EEIs and includes details on the information type and sources, a link to the respective sources, and any explanations information relevancy. The baseline supply, trends, and pricing information, combined with information from trade journals and news reports, can validate a state's operating picture during a petroleum shortage event. If all of the states are looking at the same supply indicators, they will have a more consistent perspective about the situation. Supplemental data sources are provided in <u>Appendix F</u> and on the Collaborative <u>SharePoint site</u>.

# ADOPT THE REGIONAL FRAMEWORK

Once the regional framework is created, stakeholders should identify a process for adopting the framework into their state's energy security plans. Stakeholders should conduct a review of the current internal adoption processes in their states and identify the respective agencies and officials responsible for approving and implementing the appropriate programs, measures, and guidelines outlined in the framework. This guide recommends starting with the Emergency Management Director and Energy Office Directors (or their equivalents), though states may need to deviate depending on how their internal processes are structured. States should establish a means for educating the respective officials about the agreed upon regional guidelines and framework. This effort may involve preparing presentations, conducting seminars, or other efforts to ensure that the respective signatories are fully informed before asking them to adopt the framework.



# **CONTINUED COORDINATION**

#### STEPS FOR ESTABLISHING CONTINUED COORDINATION:

- 1. Agree on a cadence and responsibilities for steady-state coordination calls.
- 2. Establish methods and platforms for sharing training and exercise information.
- 3. Discuss long-term coordination considerations and procedures.

The development of the framework should not be the end of strong coordination among regional stakeholders. Regions should be prepared to continue to collaborate as necessary to drive towards stronger preparedness and tighter linkages between the emergency management and energy offices within their respective states, as well as across the region. In addition, states should continue to share best practices and lessons learned across states, both in response to single incidents and when regional member states must respond to incidents.

## **COORDINATION CALLS**

Steady-state calls can provide regular opportunities for member states to share energy market updates and analysis and build relationships among the region's state energy and emergency management offices, in addition to other partners as determined by the region when building the associated framework. During these calls, regional stakeholders should discuss planning developments, lessons learned, preparedness activities, training, state exercises, and points of coordination, along with other topics of interest to the group. The region should discuss the requisite attendees and iterative nature of these steady-state calls when building the framework. Member state representatives may also invite additional attendees such as industry partners, partners from non-member states, and national/federal partners.

Based on the WPSRC, the recommended frequency for these coordination calls is quarterly. The region may elect to adjust the frequency of these calls if deemed necessary through future coordination, knowing that the development of the framework is only the start of regular coordination among the stakeholders. The region may develop call agenda templates while building the framework for streamlining the discussions. <u>Appendix D</u> contains sample agendas for these iterative coordination calls. Member states should also agree on assigned notetakers, as well as a centralized collaboration site where meeting notes will be shared.



# APPENDIX D: SAMPLE COORDINATION CALL AGENDAS AND SCHEDULETRAINING AND EXERCISING

A primary method through which a region maintains preparedness capabilities is through trainings and exercises. Trainings and exercises allow members of the region to test capabilities, procedures, and systems in a no-fault learning environment in advance of a shortage. This can result in the identification of gaps, strengths, and areas for improvement and provide an opportunity for coordination among member states.

During coordination calls, regional stakeholders should discuss relevant upcoming trainings and exercises that other member states may support or participate in. This should include integration of regional coordination elements into each state's petroleum exercise. To further support coordination through training and exercise, the region should maintain a calendar of events on their collaboration site (e.g., SharePoint site).

# **FUTURE COORDINATION**

Future coordination of the planning group may choose to rotate leadership across states. During framework development, the region should discuss the appropriate rotation procedures that work best for their stakeholders, whether via voting, a rotating annual list, or other tactics (reference Emergency Management Assistance Compact [EMAC] and NEMA leadership rotations for examples). The lead state serves as the primary coordinating entity for any framework revisions, meeting coordination, updates to programs and measures, or other activities the region may deem necessary for long-term coordination.



# APPENDIX A: US ENERGY INFORMATION ADMINISTRATION PADD REGIONS

Figure 1: PADD Regions



PADDs are geographic aggregations of the 50 States and the District of Columbia (DC) into five districts. There are two additional PADDs (PADDs VI and VII) that encompass US Territories (not pictured on the map).

In addition, EIA produces data at a sub-PADD level known as Refinery Districts that can also be used for events that might impact only parts of a PADD. For example, PADD 1 has three sub-PADDs, which have significant differences between their supply chains.



See below for the full state-by-state breakdown of the regions across the US:

- PADD Region 1 (East Coast):
  - 1A (New England): Maine, Vermont, New Hampshire, Massachusetts, Connecticut, and Rhode Island
  - 1B (Central Atlantic): New York, New Jersey, Pennsylvania, Maryland, Delaware, and Washington, DC
  - 1C (Lower Atlantic): Florida, Georgia, North Carolina, South Carolina, Virginia, and West Virginia
- **PADD Region 2 (Midwest):** Indiana, Illinois, Iowa, Kansas, Kentucky, Minnesota, Nebraska, Michigan, North Dakota, Ohio, Oklahoma, South Dakota, Tennessee, and Wisconsin
- PADD Region 3 (Gulf Coast): Alabama, Arkansas, Louisiana, Mississippi, New Mexico, and Texas
- PADD Region 4 (Rocky Mountain): Colorado, Idaho, Montana, Utah, and Wyoming
- PADD Region 5 (West Coast): Alaska, Arizona, California, Hawaii, Nevada, Oregon, and Washington
- PADD Region 6: US Virgin Islands and Puerto Rico
- PADD Region 7: Guam, American Samoa, and Northern Mariana Islands Territory

During World War II, the Petroleum Administration for War used these five districts to ration gasoline. In 1946, Congress passed the Defense Production Act of 1950, which created the Petroleum Administration for Defense and used the same five districts, called the Petroleum Administration for Defense Districts. The PADDs allow data users to analyze patterns of crude oil and petroleum product movements through the nation.<sup>2</sup>

<sup>&</sup>lt;sup>2</sup> This language referenced from the EIA website (<u>https://www.eia.gov/todayinenergy/detail.php?id=4890</u>). This organization reports monthly information about regional analysis of petroleum product supply and movements. The EIA website is accessible at <u>https://www.eia.gov/</u>.



# APPENDIX B: SURVEY QUESTIONS AND SCENARIO-BASED DISCUSSIONS

### EXAMPLE COLLABORATIVE SURVEY FOR STATE PETROLEUM SHORTAGE RESPONSE PLANNING

Online survey instruments are available and can be used to collect this information or one state can elect to compile the responses. Important information to collect includes:

- 1. What state do you represent?
- 2. Name
- 3. Email Address
- 4. Date of the response
- 5. Do you have a standalone petroleum response plan? If so, when was it last updated?

Please select the statement that most accurately reflects the status of the programs and measures below with respect to your state's energy security plan:

- 6. Petroleum Priorities for Essential Services Programs
  - a. The measure or program is included in the state's existing plans.
  - b. The measure or program is not included in the state's plan, but the state intends to include the program or measure when the plan is next updated.
  - c. The measure or program is not included in the state plan or supplemental planning documents and there is no intent to add it in the future.
- 7. Emergency Generators and Transfer Switches for Retail Gas Stations
  - a. The measure or program is included in the state's existing plans.
  - b. The measure or program is not included in the state's plan, but the state intends to include the program or measure when the plan is next updated.
  - c. The measure or program is not included in the state plan or supplemental planning documents and there is no intent to add it in the future.
- 8. Establish Retail Gas Station Priorities for Essential Services
  - a. The measure or program is included in the state's existing plans.
  - b. The measure or program is not included in the state's plan, but the state intends to include the program or measure when the plan is next updated.
  - c. The measure or program is not included in the state plan or supplemental planning documents and there is no intent to add it in the future.
- 9. Use of Alternative Fuel Vehicles Programs
  - a. The measure or program is included in the state's existing plans.
  - b. The measure or program is not included in the state's plan, but the state intends to include the program or measure when the plan is next updated.



- c. The measure or program is not included in the state plan or supplemental planning documents and there is no intent to add it in the future.
- 10. Contractual Provisions for Emergency Fuel Supplies
  - a. The measure or program is included in the state's existing plans.
  - b. The measure or program is not included in the state's plan, but the state intends to include the program or measure when the plan is next updated.
  - c. The measure or program is not included in the state plan or supplemental planning documents and there is no intent to add it in the future.
- 11. Minimum Purchase and/or Odd-Even Purchase Programs
  - a. The measure or program is included in the state's existing plans.
  - b. The measure or program is not included in the state's plan, but the state intends to include the program or measure when the plan is next updated.
  - c. The measure or program is not included in the state plan or supplemental planning documents and there is no intent to add it in the future.
- 12. Public Information Programs
  - a. The measure or program is included in the state's existing plans.
  - b. The measure or program is not included in the state's plan, but the state intends to include the program or measure when the plan is next updated.
  - c. The measure or program is not included in the state plan or supplemental planning documents and there is no intent to add it in the future.
- 13. State Petroleum Set-Aside Programs for Bulk Purchases
  - a. The measure or program is included in the state's existing plans.
  - b. The measure or program is not included in the state's plan, but the state intends to include the program or measure when the plan is next updated.
  - c. The measure or program is not included in the state plan or supplemental planning documents and there is no intent to add it in the future.
- 14. Waivers for State Weight Limits for Petroleum Tanker Trucks
  - a. The measure or program is included in the state's existing plans.
  - b. The measure or program is not included in the state's plan, but the state intends to include the program or measure when the plan is next updated.
  - c. The measure or program is not included in the state plan or supplemental planning documents and there is no intent to add it in the future.
- 15. Waivers of Environmental Fuel Specifications
  - a. The measure or program is included in the state's existing plans.
  - b. The measure or program is not included in the state's plan, but the state intends to include the program or measure when the plan is next updated.
  - c. The measure or program is not included in the state plan or supplemental planning documents and there is no intent to add it in the future.



- 16. Waivers of the Federal Motor Carrier Safety Administration (FMCSA) Safety Regulations
  - a. The measure or program is included in the state's existing plans.
  - b. The measure or program is not included in the state's plan, but the state intends to include the program or measure when the plan is next updated.
  - c. The measure or program is not included in the state plan or supplemental planning documents and there is no intent to add it in the future.
- 17. Request Waiver of the Jones Act
  - a. The measure or program is included in the state's existing plans.
  - b. The measure or program is not included in the state's plan, but the state intends to include the program or measure when the plan is next updated.
  - c. The measure or program is not included in the state plan or supplemental planning documents and there is no intent to add it in the future.
- 18. Request Internal Revenue Service (IRS) Dyed-Diesel Fuel Excise Tax Waiver
  - a. The measure or program is included in the state's existing plans.
  - b. The measure or program is not included in the state's plan, but the state intends to include the program or measure when the plan is next updated.
  - c. The measure or program is not included in the state plan or supplemental planning documents and there is no intent to add it in the future.
- 19. Request Emergency Fuel from the Defense Logistics Agency (DLA)\*
  - a. The measure or program is included in the state's existing plans.
  - b. The measure or program is not included in the state's plan, but the state intends to include the program or measure when the plan is next updated.
  - c. The measure or program is not included in the state plan or supplemental planning documents and there is no intent to add it in the future.

\*Please note: Fuel from the DLA is only available upon a federal declaration. Federal Emergency Management Agency (FEMA) coordination may be required accordingly.

- 20. Request Special Permits to Modify Regulatory Compliance from the Pipeline and Hazardous Materials Safety Administration (PHMSA).
  - a. The measure or program is included in the state's existing plans.
  - b. The measure or program is not included in the state's plan, but the state intends to include the program or measure when the plan is next updated.
  - c. The measure or program is not included in the state plan or supplemental planning documents and there is no intent to add it in the future.



- 21. Request a Federal Energy Regulatory Commission (FERC) Order Directing Priority Fuel Pipeline Shipments.\*
  - a. The measure or program is included in the state's existing plans.
  - b. The measure or program is not included in the state's plan, but the state intends to include the program or measure when the plan is next updated.
  - c. The measure or program is not included in the state plan or supplemental planning documents and there is no intent to add it in the future.

\*Federal actions taken or requested by states

- 22. Expand State Fuel Shortage and/or Establish Strategic Reserves\*
  - a. The measure or program is included in the state's existing plans.
  - b. The measure or program is not included in the state's plan, but the state intends to include the program or measure when the plan is next updated.
  - c. The measure or program is not included in the state plan or supplemental planning documents and there is no intent to add it in the future.
     \*Federal actions taken or requested by states
- 23. We (state) recommend the region (or support the regional goal to) create standardized templates that each state can use to request (Select all that apply):
  - a. Waivers for State Weight Limits for Petroleum Tanker Trucks
  - b. Emergency Fuel from the DLA
  - c. Waivers of the FMCSA Safety Regulations
  - d. Special Permits to Modify Compliance with PHMSA Regulation
  - e. Waivers of the Jones Act
  - f. FERC Orders Directing Priority Fuel Pipeline Shipments
  - g. Waivers of the IRS Dyed Diesel Fuel Excise Tax
  - h. None of the above
- 24. Please list any programs or measures in your state's energy security plan not listed above that should be considered for regional implementation.
- 25. Any comments or questions on the potential programs and measures?
- 26. What date (Month/Year) was your state's energy security plan last updated?
- 27. When (Month/Year) does your state intend to update its energy security plan next?



# SAMPLE SCENARIO BASED DISCUSSION LAYOUTS

### Scenario 1, Part 1

Discussion Element	Discussion Content
Scenario	At 9:57 a.m. on April 29 <sup>th</sup> , an earthquake occurs at the strike-slip fault line between the Pacific Plate and North American Plate and strikes the southern coast of the State of Obsidian with a magnitude of 7.8 and a maximum Mercalli intensity of XI (extreme). The State of Obsidian is one of the most populous in the country and home to pipelines that feed much of the western portion of the country.
	Shaking lasts for nearly two minutes, with the strongest shaking occurring near the fault. Pockets of strong shaking propagate away from the fault, where sediments trap the waves.
	The earthquake immediately causes unprecedented damage to Southern Obsidian, affecting a major pipeline and five of the largest refineries in the country. It is unknown how long the pipeline and refineries will be offline.
	The Governor of Obsidian declares a State of Emergency and convenes a Special Fuel Task Force to respond to the emergency. As a member of emergency management, the energy office, transportation, National Guard, or another critical agency stakeholder, you are designated as a part of this Fuel Supply Task Force.



Assumptions	<ul> <li>The Governor has implemented "Waivers of Federal Motor Carrier Safety Regulations (Driver Hours of Service)" and "Waivers of Environmental Fuel Specifications."</li> <li>Emergency management and industry partners are monitoring petroleum supply to the region.</li> </ul>
Objectives	<ul> <li>Discuss the provisions required to implement the "Minimum Purchase Program" or the "Odd-Even Purchase Program" in accordance with the program's implementation procedures (Guidance for States on Petroleum Shortage Planning Response, p. 45).</li> <li>Discuss implementation of the "Waivers of Federal Motor Carrier Safety Regulations (Driver Hours of Service)" program (Guidance for States on Petroleum Shortage Planning Response, p. 81).</li> </ul>
	Programs/Measures Decisions

- Which petroleum response programs/measures do you recommend implementing?
- What are the advantages and disadvantages of implementing these programs/measures?

#### **Communications/Information Sharing**

- Who is responsible for activating this program and how will it be activated?
- What information is required to implement this program?
- What are the internal communications requirements associated with program delivery?
- What are the external communication requirements associated with program delivery?
- Who is responsible for public information and messaging as they relate to the implementation of this program?
- What information will be provided to the public and how will it be provided? Who is responsible for posting the executive order to the governor's website?

Questions



#### **External Coordination**

- How will program-specific disputes be resolved? Who is responsible for resolving these disputes?
- How will cooperation of retail gas station operators be ensured?

#### Data/Evaluation

• How will the effectiveness of the proposed program/measure be evaluated? Who is responsible for conducting program/measure evaluation?

#### Additional Considerations/Measures

- With the potential for price gouging of petroleum products, what additional planning considerations need to be considered when administering petroleum response programs/measures?
- What additional petroleum response planning considerations must be considered?



## Scenario 1, Part 2

Discussion Element	Discussion Content			
Scenario	Situation reports (SitReps) indicate that panic buying of petroleum products is prevalent across the region and that neighboring states are also experiencing challenges with meeting heightened fuel demands. Despite efforts to mitigate the long lines at retail gas stations, the governor has requested a meeting with emergency managers and Emergency Support Function (ESF)-12 representatives from neighboring states to coordinate regional fuel supply requirements.			
	As a member of the Fuel Response Task Force, you have been directed to identify additional fuel response programs/measures that could be employed to address heightened fuel demand.			
Assumptions	<ul> <li>Significant lines of vehicles either develop at retail fueling stations or conditions exist that would make them likely (e.g., decline in fuel supply).</li> <li>Urban/suburban communities are likely to be impacted more significantly.</li> <li>The governor has implemented <i>"Waivers of Federal Motor Carrier Safety Regulations (Driver Hours of Service)"</i> and <i>"Waivers of Environmental Fuel Specifications."</i></li> <li>Emergency management and industry partners are monitoring petroleum supply to the region.</li> </ul>			
Objectives	<ul> <li>Identify and discuss alternative fuel shortage response programs/measures and conditions for implementation.</li> <li>Identify mechanisms to make fuel shortage response program/measure implementation more regionally focused.</li> </ul>			



#### Programs/Measures Decisions

- What additional programs/measures should the Fuel Response Task Force consider implementing?
  - o Jones Act Waivers
  - IRS Dyed Diesel Fuel Waivers
  - Emergency Fuel from DLA
  - Defense Production Act
- What are the advantages/disadvantages of these programs/measures?

#### **Regional Coordination**

#### Questions

- How can the implementation of fuel response programs/measures be more regionally focused?
- What are the information requirements for implementing more regionally focused programs/measures?
- Which stakeholders would be involved in coordinating program/measure implementation?

#### Interdependencies

 If this scenario resulted in a long-term impact to petroleum supply or a long-term power outage, what additional planning considerations must be taken into account to ensure the continued delivery of petroleum products to the region? Consider the impacts to other critical infrastructure sectors and interdependencies.



### Scenario 2

Discussion Element	Discussion Content
	On April 29 <sup>th</sup> , at 3:15 p.m., a cyberattack targeted critical infrastructure systems. While detection equipment provided early warning, allowing for many systems to be taken off-line, extensive damage has been reported at key points along the oil and gas supply chain (e.g., refineries, pipelines) servicing your region. The result is a significant reduction in fuel supply to your state. The governor has declared a State of Emergency.
Scenario	SitReps indicate that essential service providers (e.g., law enforcement, fire, and emergency medical services) are encountering challenges with securing fuel. Additionally, industry partners have suggested that based on the scope of the cyberattack, normal fuel supply may not be available for at least one month.
	As a member of emergency management, the energy office, transportation, National Guard, or other critical agency stakeholder, you are part of a Fuel Supply Task Force for your state. The governor has requested that a <i>"Petroleum Priorities for Essential Service Programs"</i> program be implemented to ensure essential service providers have adequate fuel supply to execute their respective responsibilities.
Assumptions	<ul> <li>The governor has issued a State Declaration of Emergency.</li> <li>Petroleum suppliers are unable to provide sufficient fuel quantities to priority end-users via contractual/non-contractual agreements.</li> <li>Priority end-users are not receiving sufficient amounts of fuel to maintain essential public services.</li> <li>The governor has implemented "<i>Waivers of Federal Motor Carrier Safety Regulations (Driver Hours of Service)</i>" and "<i>Waivers of Environmental Fuel Specifications</i>."</li> <li>Emergency management and industry partners are monitoring petroleum supply to the region.</li> <li>The incident has regional impacts and is anticipated to last a minimum of one month.</li> <li>Cascading critical infrastructure impacts are likely.</li> </ul>



- Discuss the provisions required to implement the "*Petroleum Priorities for Essential Service Programs*" program in accordance with implementation procedures (Guidance for State on Petroleum Shortage Planning Response, p. 34).
- Discuss implementation considerations for the "*Retail Gas Station Priorities for Essential Services*" measure (Guidance for State on Petroleum Shortage Planning Response, p. 70) when essential services do not possess adequate on-site fuel storage capabilities.



#### Programs/Measures Decisions

- Under what conditions would a priority end-user program be useful?
- What are the advantages and disadvantages of implementing this or other programs?

#### **Communications/Information Sharing**

- What other agencies should be a part of the Fuel Task Force?
- Who is responsible for activating these programs and how will they be activated?
- What information is required to implement these programs?
- What are the internal communications requirements associated with program delivery?
- What are the external communication requirements associated with program delivery?

#### External Coordination

• How will program-specific disputes be resolved? Who is responsible for resolving these disputes?

#### Questions

#### Additional Considerations/Measures

 If essential service providers do not have sufficient on-site fuel storage capabilities and rely heavily on retail gas stations for their fuel supply, are there any additional programs/measures that could be implemented?

#### **Regional Coordination**

- Based on the scenario above, how could states develop and implement more regionally focused programs/measures to address petroleum shortages?
- Who would be responsible for facilitating interstate/regional coordination as it relates to the implementation of petroleum response programs/measures?



#### Interdependencies

• How might damage to multiple critical infrastructure sectors disrupt the implementation of petroleum response programs/measures?

#### Prioritization

- How will petroleum products be prioritized in the event of cascading critical infrastructure impacts?
- Who will be responsible for coordinating the prioritization of petroleum resources?



# APPENDIX C: SAMPLE COLLABORATIVE FRAMEWORK LAYOUT

#### **Collaborative Framework Layout**

The Western Petroleum Shortage Response Collaborative Regional Framework:

- Executive Summary of the Framework
- Introduction
  - Assumptions
- Programs and Measures for Regional Implementation
  - Programs
  - o Measures
- Decision-Making Process
  - o Regional Coordinated Response
  - o Triggers and Thresholds for Regional Coordination
  - o Roles and Responsibilities
  - o Regional Communication and Information Sharing
  - Ongoing Regional Petroleum Shortage Preparedness
- Appendix A: Program Templates
  - Waiver of Federal Motor Carrier Administration Safety Regulations
  - o Petroleum Priorities for Essential Services
  - o Odd/Even Program
  - o Environmental Protection Agency (EPA) Fuel Specific Waiver
  - Set-Aside Program
- Appendix B: Measure Templates
- Appendix C: Messaging Guidance
  - Public Information Programs and Crisis Communications
- Appendix D: Tools for the Collaborative
  - o Steady-State Coordination Call Agenda and Schedule
  - o Petroleum Shortage Coordination Call Agenda
- EEIs



# APPENDIX D: SAMPLE COORDINATION CALL AGENDAS AND SCHEDULE

# STEADY-STATE COORDINATION CALL AGENDA

Table D.1: Steady-State Call Agenda

[Insert Region Here] Collaborative: Steady-State Call Agenda			
Date: Time:	Dial-In Informa	ation:	
1. Introductions and Contact Information			
Lead / Facilitator:			
Member States:			
Attendees: [Regional Partners, Other Attendees]			
2. Topic #1 [enter topic here]			
Lead / Facilitator:			
[Report Out Items]			
3. Topic #2 [enter topic here]			
Lead / Facilitator:			
• [Report Out Items]			
4. Other Discussion			
Lead / Facilitator:			
[Report Out Items]			
5. Action Items			
Lead / Facilitator:			
Action Item:	Responsible Party:	Status:	
6. Next Regional Steady-State Call			
Lead / Facilitator:	Date:	Time:	



# PETROLEUM SHORTAGE COORDINATION CALL AGENDA

Table D.2: Regional Response Call Agenda

[Insert Region Here] Collaborative: I	Response Call Agenda			
Date: Tir	me:	Dial-In Information:		
1. Introductions and Contact Information				
Lead / Facilitator:				
Member States:				
Regional Response Partners: (e.g., Natio	nal Other Sta	akeholders: (e.g., industry partner		
Association of State Energy Officials repr	resentative) represent	ative)		
2. Event Details				
Lead / Facilitator:	Impacted	State(s):		
Hazard / Event	Curren	nt and Expected Impacts		
Anticipated / Actual Incident Location	<ul> <li>Resport</li> </ul>	nse Operations Points of Contact		
Onset and Timing of Incident				
3. Situational Awareness				
Lead / Facilitator:	Impacted	State(s): [Round Robin]		
State of Current Activities:	_			
Areas Affected		y Market Status		
Estimated Impacts     Supply Chain Considerations				
Supply Chain Considerations     A. Regional Coordination	• Other:			
Lead / Facilitator:	Impacted	State(s):		
Program and Measures Considerations:	Impuotou	0440(0).		
	Program	m/Measure Description		
[Program Measure 1]				
		0 0		
	Next S     Other:	•		
	• Other.			
5. Other Discussion				
		Impacted State(s): [Round Robin]		
Discussion Items:				
6. Action Items				
Lead / Facilitator: Impacted State(s): [Round Robin]				
Action Item:	Responsible	Responsible Party: Status:		
7 Mart Davis and Orafamana Oall				
7. Next Regional Conference Call				



# **APPENDIX E: SAMPLE DECISION-MAKING PROCESS**



**REGIONAL PETROLEUM SHORTAGE RESPONSE** | COLLABORATIVE DEVELOPMENT GUIDE



# **APPENDIX F: SUPPLEMENTAL DATA SOURCES**

# WESTERN STATES SAMPLE ENERGY DATA SOURCES AND EEIS

### **Assessments and Short-Term Forecasts**

ltem	Description	Link	How is this data used?
State Profiles and Energy Estimates (EIA)	Energy use and infrastructures maps by state	<u>eia.gov/state</u>	Baseline state energy data for situational awareness supply chain, support program, and policy development.
Short Term Energy Outlook (EIA)	US Energy Supply and Demand Assessment	https://www.eia.gov/outlooks/steo/	State and regional trends are affected by the US outlook. This report may help identify factors that influence regional supply and demand.
State and Regional Risk Profiles (Temporally unavailable) ( DOE)	Energy Sector Risks by state and region	energy.gov/oe/mission/energy- infrastructure-modeling-analysis/state- and-regional-energy-risk-assessment- initiative	Quantifies energy sector risks at the state and regional level. Helps understand the nature of the threats that may require a response.
Energy Infrastructure with Real-Time Storm Information (EIA)	Maps of infrastructure and storms and warning	https://www.eia.gov/special/disruptions/	Shows areas affected by hurricanes and storms and the critical energy infrastructure in the impacted area.



ltem	Description Link		How is this data used?	
Short and Medium Range Weather Forecasts (National Weather Service)	National Forecast Maps	https://www.weather.gov/forecastmaps	Provides for short- and, medium-term forecast and assists in evaluating the impacts of weather-related events on heating and cooling energy demands.	
Heating and Cooling Degree Days (National Weather Service)	Cumulative mean difference from the base temperature	https://www.cpc.ncep.noaa.gov/products/ analysis monitoring/cdus/degree days/	Allows a comparison to normal and recent history of the level of energy demand for heating and cooling.	

### **Petroleum Data**

Item	Description	Link	How is this data used?
Monthly State Petroleum Product Use (EIA)	Prime supplier sales volumes by state	<u>eia.gov/dnav/pet/pet cons prim dcu nu</u> <u>s m.htm</u>	A measure of petroleum product use. Shows the deliveries of refined petroleum produce by month for end use consumption by state.
State and regional level inventories (EIA)	Refinery, bulk terminal, stocks by state	https://www.eia.gov/petroleum/data.php# consumption	Shows monthly historical primary stocks by state and regions. Can be compared to weekly regional stock data from the EIA Weekly Petroleum Status Report.



Item	Description	Link	How is this data used?
Working and net available shell storage capacity (EIA)	Petroleum Administration for Defense Districts (PADD) level storage capacity	<u>https://www.eia.gov/petroleum/storageca</u> <u>pacity/</u>	Allows user to access stock data and determine at a PADD level how full or low stock levels may be relative to total storage capacity. Allows user to say how full the storage is in the region.
Retail prices gasoline and diesel fuel (AAA)	By state—current daily, historical	https://gasprices.aaa.com/todays-gas- prices	Has current gasoline prices date by states and major cities; spiking prices may be due to supply disruptions.
Gas Buddy	US gasoline price heat map	US and Local National Gas Station Price Heat Map - GasBuddy.com	Provides comparative gasoline prices analysis. Higher prices may indicate supply constraints.
Daily wholesale and retail petroleum product prices (EIA)	National and regional petroleum prices	eia.gov/todayinenergy/prices.cfm	Shows daily wholesale and retail prices for various energy products , including spot prices and select futures prices at national or regional levels.
Residential Heating Oil and Propane Prices (EIA)	Weekly by states during the heating season	Residential Propane Weekly Heating Oil and Propane Prices (October - March) (eia.gov)	Weekly residential prices by state (October through March). Price spikes are indicative of supply problems.
Capacity of Operable Petroleum Refineries by State (EIA)	Barrels per day	eia.gov/petroleum/refinerycapacity/table 3.pdf	Operational refinery capacity is important. When one or more refineries shut down, this tool can estimate the total supply disruption and compare it to state demand.



Item	Description	Link	How is this data used?
Pipeline, Marine, and Rail	Pipeline, Tanker, Barge	eia.gov/dnav/pet/PET_MOVE_NETR_A_E	Shows the volume of the flow for a full range of petroleum products between PADD, including net imports and exports.
Deliveries (EIA)	and Rail by PADD	PC0_VNR_MBBL_M.htm	

# **Energy Supply State Report Examples**

Report	Туре	Organization	Link
Weekly Heating Fuels Report	Historic prices and inventories and analysis	NYSERDA	nyserda.ny.gov/Cleantech-and-Innovation/EA-Reports- and-Studies/Weekly-Heating-Fuels-Report.aspx
Weekly Transportation Fuels Report	Historic prices and inventories and analysis	NYSERDA	nyserda.ny.gov/Cleantech-and-Innovation/EA-Reports- and-Studies/Weekly-Transportation-Fuels-Report
Energy Prices and Weather Data	Historic prices and inventories and analysis	NYSERDA	nyserda.ny.gov/Cleantech-and-Innovation/Energy-Prices
Petroleum Infrastructure Studies	Multiple Studies including terminal, gas stations, etc.	NYSERDA	nyserda.ny.gov/About/Publications/EA-Reports-and- Studies/Petroleum-Infrastructure-Studies
Michigan Energy Appraisal (Spring and Fall)	Short-term projections for the state and region	Michigan Agency for Energy	Michigan Energy Assessment Winter 2019
California	Energy Maps of California	California Energy Commission	energy.ca.gov/maps
Kentucky Situational Awareness Report	Consolidated dashboard of relevant EIA information	Kentucky Office of Energy Policy	energy-situation-report-kygis.hub.arcgis.com



# SITUATIONAL AWARENESS AND REAL-TIME ASSESSMENT RESOURCES

### **Emergency Situation Reports (SitReps) and Infrastructure Mapping**

Resource	Site Provider	Link	Social Media	Description
EIA Storm Threat Mapping Tool	DOE	https://www.eia.gov/special /disruptions/	Twitter: @EIAgov Facebook: EIA.gov	EIA tracks and reports on selected significant storms that impact or could potentially impact energy infrastructure.
Petroleum Energy infrastructure and Resources	DOE	eia.gov/app/e1c92d7601b 9490697d22dfe2da1b4ac		
Energy Disruptions Maps (Hurricanes, Cyclones, Typhoons, Wildfires, Flooding)	DOE	atlas.eia.gov/pages/energy -disruptions		
Public Emergency Energy Situation Reports	DOE	Emergency Response Hub		Highlightsenergyemergencies;summarizesDOEactions,energyinfrastructureoperationstatus, etc.
State-SpecificEmergencyAlertsandSituationalAwarenessStatements	State Emergency Management Agencies			



### Weather

Resource	Site Provider	Link	Social Media	Description
National Hurricane Center	National Oceanic and Atmospheric Administration (NOAA)	<u>https://www.nhc.noaa.gov</u> /	Twitter: @NHC_Atlantic Facebook: NWSNHC	Provides hurricane and marine forecasts.
Active Weather Alerts by Hazard	NOAA	weather.gov/alerts		
Snow and Ice Accumulation	NOAA	weather.gov/box/winter		
National Forecast Maps	NOAA	<u>weather.gov/forecastmap</u> <u>S</u>		
Heating Degree Days	NOAA	https://www.cpc.ncep.noa a.gov/products/analysis_ monitoring/cdus/degree_ days/		Weekly and monthly statistics by state.
Cooling Degree Days	NOAA	https://www.cpc.ncep.noa a.gov/products/analysis monitoring/cdus/degree days/		
Climate Outlooks	NOAA	https://www.cpc.ncep.noa a.gov/products/forecasts/		Watches/Warnings; Hazards; Weather Outlooks for three to seven and eight to ten days; monthly; seasonal.



### **Pipeline Bulletin Boards**

Resource	Site Provider	Link	Social Media	Description

### **Marine Traffic**

Resource	Site Provider	Link	Social Media	Description
Tanker Traffic		marinetraffic.com https://www.vesselfinder.com/		Displays near real-time positions of ships worldwide. Can zoom in on ports.

### **Port Conditions**

Resource	Site Provider	Link	Social Media	Description
Seattle				
Portland				
Los Angeles				
Others				



### **Energy Emergency Assurance Coordinators**

Resource	State Provider	Link	Social Media	Description
ISERnet	Log into the ISERnet for the current listing by state			

## State Energy Offices

Resource	State Provider	Link	Social Media	Description
Alaska	Alaska Energy Authority	akenergyauthority.org		
Washington	Washington State Energy Office	https://www.commerce.wa.gov/growing- the-economy/energy/washington-state- energy-office/		
Oregon	Oregon Department of Energy	oregon.gov/energy		
California	California Energy Commission	energy.ca.gov		
Nevada	Nevada Governor's Office of Energy	energy.nv.gov		
Idaho	Idaho Governor's Office of Energy and Mineral Resources	https://oemr.idaho.gov/		



Resource	State Provider	Link	Social Media	Description
Montana	Montana Energy Office	deq.mt.gov		
Colorado	Colorado Energy Office	colorado.gov/energy		
Utah	Utah Office of Energy Development	<u>energy.utah.gov</u>		
Arizona	Arizona Department of Administration	doa.az.gov/divisions		

## State Emergency Management Agencies

Resource	Site Provider	Link	Social Media	Description
Alaska				
Washington				
Oregon				
California				
Nevada				
Idaho				



Resource	Site Provider	Link	Social Media	Description
Montana				
Colorado				
Utah				
Arizona				

#### **Trade Associations**

Resource	Link	Social Media	Description
American Petroleum Institute	https://www.api.org/		
American Fuel and Petrochemical Manufactures	https://www.afpm.org/		
American Gas Association	aga.org		
National Propane Gas Association	https://www.npga.org/		
Western Petroleum Marketers Association	wpma.com		



Resource	Link	Social Media	Description
Gasoline and Diesel Fuel Stations	Gas Station Convenience Store Associations (petromac.com)		

# **Quick Energy Analysis**

Resource	Site Provider	Link	Social Media	Description
Oil Price Information Service (OPIS) Alerts	OPIS	OPIS Products   Energy Pricing, News, Analytics & Software (opisnet.com)		Real time petroleum market information. Subscription fee.
Energy topics from Google	Google	support.google.com/alerts/answer/ 4815696?hl=en		By creating a Google Alert, you can get email notifications any time Google finds new results on a topic that interests you. Enter key words like energy emergency or liquified natural gas.
"Peak Oil Review" and Peak Oil News"	Association of the Study of Peak Oil- USA	https://energybulletin.org/		Subscribe to the weekly review of world oil market events and subscribe to daily articles.
"Today in Energy"	EIA	<u>https://www.eia.gov/todayinenergy</u> /		Covers key energy issues and topics in a short-article, one-page format. Functionalities include browse by tag, archive files, and searches.



Resource	Site Provider	Link	Social Media	Description
State Energy Risk Profiles Temporally Unavailable	EIA	energy.gov/oe/mission/energy- infrastructure-modeling- analysis/state-and-regional- energy-risk-assessment- initiative#STATE		Examines 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.
State Energy Profiles	EIA	https://www.eia.gov/state/		Key data on energy indicators; prices compared to US averages; energy production, supply, electric generation; distribution and marketing; fueling stations; energy consumption and expenditures and state rankings; emissions.

### **Petroleum Waivers**

Resource	Site Provider	Link	Social Media	Description
Transportation Waivers and Emergencies	US Department of Transportation(DOT)	transportation.gov/emergency		DOT will post information related to transportation waivers and other actions.
FMCSA Hours of Service Exemptions	National Propane Gas Association (NPGA)	npga.org		On homepage, under Hours of Service Exemptions.



Resource	Site Provider	Link	Social Media	Description
Petroleum Shortage Response Planning	NASEO	https://naseo.org/petroleum- shortage-response-planning		
Emergency Declarations, Waivers, Exemptions and Permits	FederalMotorCarrierSafetyAdministration(FMCSA)	fmcsa.dot.gov/emergency- declarations		
Energy Waiver Library	DOE	Energy Waiver Library   Department of Energy		



# **APPENDIX H: ACRONYMS**

DLA	Defense Logistics Agency
DOE CESER	Department of Energy, Office of Cybersecurity, Energy Security, and Emergency Response
EEI	Essential Element of Information
EIA	US Energy Information Administration
EMAC	Emergency Management Assistance Compact
EPA	Environmental Protection Agency
ESF	Emergency Support Function
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FMSCA	Federal Motor Carrier Safety Administration
IRS	Internal Revenue Service
NASEO	National Association of State Energy Officials
NEMA	National Emergency Management Association
NOAA	National Oceanic and Atmospheric Administration
NWSNHC	National Weather Service National Hurricane Center
OEM	Office of Emergency Management



PADD	Petroleum Administration for Defense Districts
PHMSA	Pipeline and Hazardous Materials Safety Administration
US	United States
WPSRC	Western Petroleum Shortage Response Collaborative