

Petroleum Shortage Response Planning Workshop

Summary of Workshop Outcomes

April 29 – May 1, 2019

San Diego, California

EXECUTIVE SUMMARY

On April 29, 2019 and May 1, 2019, representatives from 10 states from the western United States (U.S.), federal agencies, associations, and other industry partners gathered for a petroleum shortage response planning workshop. The workshop defined the current capacity and practices to respond to a petroleum shortage in the western states, served as a conduit to enhance regional coordination to bolster the overall energy resilience, and to identify areas where future planning could enhance existing practices. For a summary of outcomes see **Table 1 - Workshop Outcomes** below. This workshop was the second iteration of its kind, with the first occurring in February 2018 in Atlanta, Georgia with representation from states in the Southeastern U.S.

WORKSHOP PARTICIPATION

The following organizations participated in the workshop:

- **Event sponsors:** The United States Department of Energy (DOE), the National Emergency Management Association (NEMA), and the National Association of State Energy Officials (NASEO).
- **States participating:** Arizona, California, Hawaii, Idaho, Montana, Nebraska, Nevada, Oregon, Utah, and Washington.
- **Other participants:** Argonne National Laboratory, Cybersecurity and Infrastructure Security Agency (CISA), San Diego County, and GasBuddy.

WORKSHOP APPROACH

Representatives from Oregon, Washington, and DOE kicked off the workshop by sharing both promising practices and lessons learned from real world shortages, as well as petroleum shortage planning processes. Following this, a representative from GasBuddy discussed how GasBuddy has integrated into state-level emergency responses in the past and facilitated a question and answer session with workshop participants on how GasBuddy and data can play a role in their response practices. The California Energy Commission then led participants through an educational sessions of the intricacies and interdependencies of petroleum infrastructure in the western U.S., before NASEO presented a primer on petroleum shortage response planning, including the availability and use of the *NASEO Guidance for States on Petroleum Shortage Response Planning*. This guidance, along with many supplemental materials, are tools that are available for download on NASEO's [website](#).

Participants put their response coordination to the test through a scenario-driven discussion of both earthquake and cyberattack response operations for the fictional state of Obsidian, before walking through a facilitated exploration of where the region currently stands with preparedness for petroleum shortages, where the region would like to be, and how the region could get to the desired level of preparedness and coordination.

SUMMARY OF WORKSHOP OUTCOMES

The following elements represent highest priorities identified through the workshop along with opportunities to build on the foundation set by this workshop. **Table 1 - Workshop Outcomes** offers a summary of all strengths and areas for improvement identified by participants.

Regional Coordination

States participating in the workshop have already developed relationships with some neighboring states, but there is room for coordination to be formalized and enhanced throughout the region. An additional layer of complexity lies in defining what the “region” truly is for the interdependencies of the western petroleum supply chain. Key considerations for regional coordination include:

- **Interstate relationships:** Many of the participating states already have strong working relationships with neighboring states but felt the desire to formalize those relationships. The interdependencies of the fuel infrastructure in the western portions of the U.S. makes the development of strong interstate coordination more of a requirement, rather than an opportunity. The creation of a regional fuels working group was suggested as a body to collectively coordinate the enhancement of interstate relationships and associated priorities. The Washington Department of Commerce Energy Office volunteered their office as a coordinator in the missions of building interstate relationships.
- **Redefining the “region”:** Many of the participants considered their “region” to follow that of the [Federal Emergency Management Agency \(FEMA\) regions](#). However, the interdependencies of the petroleum supply chain do not follow the same lines as the FEMA regions and requires the coordination of states from multiple FEMA regions.
- **Validation and exercise opportunities:** States expressed a desire to begin regional energy exercises to continue to build the shared knowledge, the partnerships, and the communication between states. To continue building in the region through exercises, states felt it would be beneficial to execute different types of exercises, ranging from tabletop exercises to full-scale exercises.
- **Regional coordination framework:** Partners identified that building out a regional coordination framework, including mutual aid considerations, would be beneficial for responding to petroleum shortages. For this to bring the most benefit, this framework must be flexible to expand and contract, based on the incident, as well as be able to be applied to any combination of impacted states in the region.
- **Fuel mission ready packages (MRPs):** MRPs are a way to pre-identify resources an entity (resource provider) is able to deploy in an emergency, including associated logistical needs and cost. Workshop participants identified building fuel-related MRPs as a way to streamline and expedite resource sharing in the region and beyond the region, when needed.

External Coordination

Participating states have established relationships with industry partners and associations, but to varying degrees. Participants noted that associations and industry should be part of an ongoing cross-sector preparedness

program, as well as after-action processes after an event occurs. While building relationships with private sector industry counterparts can be a challenge due to anti-trust laws and other roadblocks, it was highlighted that associations can play a major role in establishing those relationships. Key considerations for external coordination include:

- **Public sector relationship building:** Participants felt that further establishing partnerships and relationships between emergency management, energy officials, industry, and other states would enhance the region's ability to respond to a petroleum shortage. A primary need highlighted in this area was the need for greater collaboration between energy offices and emergency management, including what functions emergency management inherently does, such as media coordination and resource management, that the energy sector could integrate into. A workshop participant from California Office of Emergency Services (Cal OES) identified this collaboration as a key focal point to implement in California following the workshop.
- **Federal integration:** Participants expressed a need to better understand federal roles in both response and recovery, including what the federal government is able to provide for support during an incident and when they are able to support. Participants also expressed a need for clarity surrounding what the federal government is authorized to do in an emergency and what would remain the responsibility of the impacted state(s). Lastly, participants identified a critical need for a federal push to expand mitigation, preparedness, and recovery in the energy, especially to move the modernization of infrastructure forward.
- **Private sector relationship building:** States noted that working with private-sector partners to confirm private sector and public-sector plans are interoperable was a necessary next step to further enhance the capacity for information sharing and operational integration. Associations were pointed to as a key player in this coordination. Two best practices shared from Oregon were (1) building relationships with private sector through a statewide effort to engage in onsite coordination, involving the state making site visits to identified potential partners and (2) developing a survey to share with private sector partner to gauge their desire to be a part of cross-sector coordination. Lastly, the identification of a value proposition for private sector engagement was discussed as a potential tool to gain buy-in.
- **Establishment of cross-sector conference calls:** There are several practices across the country that establish a reoccurring conference call for public sector and private sector petroleum supply chain stakeholders. Among these, California's intrastate call, New England's teleconference, and Michigan's teleconference were mentioned as best practices for the region to draw from. This call would need to have a sponsor or owner and an established rhythm to be successful. Instituting this call would not only build partnerships with the private sector to enhance response but will also allow for continuous information sharing during "blue-sky" days, as well.
- **Long-term recovery planning:** A significant disruption to the petroleum supply chain would necessitate the need for a coordinated recovery involving private sector, public sector (energy and emergency management), non-governmental entities, and other partners. Pre-planning for such a recovery across the region would better position all involved parties for a successful recovery.

Public Information

Past events have shown the power of media and public perception in either creating a shortage, worsening one, or helping mitigate one, necessitating the ability to not only provide the public with accurate information, but also work to correct misinformation as it pertains the event. Key considerations for public information include:

- **Social media:** Social media, as a public information medium, is ever evolving and requires specialized knowledge to understand trends in its development as well as the ways in which to collect the most information from it as possible and to be as impactful as possible with messaging campaigns. The participating states highlighted the value of identifying and working with a virtual operations support team (VOST) to help manage social media during an event.
- **Joint messaging strategies:** A need to continue to integrate industry and associations into messaging efforts to create a unified public information system was identified. Additionally, these stakeholders must be integrated with the messaging strategy coming from that state emergency management. A suggested path forward was to identify best practices for pre-scripted messages and have a public information/crisis communication workshop to develop prescribed messages with emergency management, energy offices, public information officers for elected officials/government offices, and private sector partners.

Data Acquisition, Evaluation, and Implementation

Participants stated an understanding that data is critical and had previously identified some avenues to obtain necessary data, including engaging nontraditional private sector partners (e.g. GasBuddy). Key considerations for data include:

- **Enhanced data application:** More knowledge of what data is available and how it could be used, as well as what data is needed was emphasized as a need among workshop participants. Participants also underscored a need to be able to analyze the data and separate the data “noise” from the truly needed data and transform the data to actionable intelligence. One element of this that was highlighted was the calculation of burn rates and being able to take information on what petroleum is coming into the region and identify the burn rate to be able to better approximate when the petroleum supply will run out.
- **Identification of data sources:** Participants identified several sources for data, but also expressed a need to have redundant data sources, and an understanding of where to reroute data requests if they encounter a roadblock. It was also highlighted that data acquisition should not just be during a response, but should happen during preparedness phases, as well as collect historical data to understand past trends.
- **Common operating picture:** Data visualization to maintain a common operating picture was also identified as need during the workshop conversations. Many states have different mapping and visualization tools that do not speak to each other or do not include oil and natural gas. While there are tools for electricity data visualization, such as a system Oregon has developed and DOE’s [Eagle-I](#), there are not yet similar tools for oil and natural gas. The expansion of current platforms to include oil and natural gas representation and to integrate into state platforms is an action that would greatly enhance the ability of states to maintain a common operation picture throughout an event involving a petroleum shortage. Additionally, finding ways to maintain visibility existing information, such as the U.S. Coast Guard requiring four days’ notice on inbound shipments, provides context that otherwise is not available.

- **Guidance navigating regulations to enhance information sharing:** Under public information laws, states are required to share all information with the public, except for the types of information identified in state legislation as exemptions to this practice. Participating states identified the need to understand their state's exemption legislation and further understand what this legislation would mean for sharing data and information across state lines and with the public sector.

Prioritization, Policy, and Contracts

The act of prioritization and the application of both policy and contracts were a key discussion during the workshop. Many states have encountered challenges with establishing priorities during an emergency, as well as working through policies and utilizing contracts. Key considerations for prioritization, policy, and contracts include:

- **Elected official coordination:** Political input on prioritization decisions was recognized as a consideration to be addressed pre-event by gaining buy-in and establishing priorities based on criteria that is clear and easy to explain.
- **Inclusion of technology into prioritization:** Response capacity is extremely limited when crucial communications and technology infrastructure is compromised. Through an investigation of interdependencies, Washington discovered the criticality of keeping the data center law enforcement uses active and established this center as a priority. Workshop participants echoed the importance of incorporating large communications/information technology (IT) providers and data centers into prioritization, even if they initially seem like an unlikely candidate.
- **Defining critical infrastructure:** There are varying definitions of critical infrastructure across the country and the definition can even vary within a state. The regional participants desired an understanding of a holistic definition of critical infrastructure, including fuel resources, down to the local level.
- **Emergency contract guidance:** Many states have emergency contracts in place with vendors but are unsure of how resilient the contracts are. Force Majeure clauses bring into questions the sustainability of many of these contracts, but participants were aware of a local jurisdiction, Clark County, Washington, who had been able to establish contracts without this clause. Participants felt it would be valuable to collect and share best practices on the establishment of resilient emergency contracts.
- **Application of waivers:** The workshop participants identified the need of waiver templates, including identification of who the requestor should be and who the request is made to. These waiver templates could be collected in a playbook that would also include the identification of who the requestor is and who the request is made to, identification and documentation of authorities, contacts (and alternative contacts), as well as information about the application and intent of each waiver.

Workshop Outcomes

The table below offers a complete summary of all strengths and areas for improvement identified by participants.

Table 1 - Workshop Outcomes

Regional Coordination

Strength	Strong working relationships already exist between many of the states.
Strength	Acknowledged instances in which incidents would be best handled with collaboration from regional partners and are engaged to address this.
Strength	Several states in within the region have well-developed, regularly updated petroleum shortage response plans.
Area for Improvement	Participating states do not have a formal plan or coordinating body for planning and response coordination. The establishment of a regional fuels working group could function as that coordinating body and spearhead the development of a regional framework and fuel-related MRPs.
Area for Improvement	Defined regions are not reflective of the petroleum supply chain, which challenges continual coordination. Developing regions to coordinate within that are reflective of the petroleum supply chain would better enable interaction.
Area for Improvement	There are not planned exercises for the states within the petroleum supply chain region to test their coordination. Opening up state exercises to be multi-state exercises and planning regional exercises would address this area.

External Coordination

Strength	Oregon has been successful in beginning to build relationships with private sector partners through a combination of surveying and onsite meetings.
Area for Improvement	There is opportunity to further integrate industry and associations into preparedness, response, and recovery through establishing cross-sector conference calls, applying best practices from around the country.
Area for Improvement	Clarification on federal roles, authorities, and applicable funding for petroleum shortages/the energy sector is needed.
Area for Improvement	Further collaboration between emergency management and energy offices within each state, as well as across the region, is needed to avoid duplication of effort and enhance preparedness, response, and recovery measures.
Area for Improvement	The region does not currently have a plan for the long-term recovery associated with a major disruption. Coordinating across disciplines and sectors on the development of a plan for this would better position the region to recover.

Public Information

Strength	Some participating states have already built partnerships with VOSTs and integrated them into responses.
Area for Improvement	Most states within the region do not feel prepared to be able to monitor and manage social media during a shortage. Partnering with emergency management and VOSTs will enhance social media capabilities.
Area for Improvement	Emergency management, energy offices, associations, and industry do not currently have a plan to coordinate on messaging strategies. Developing these relationships will allow for a unified message to be disseminated to the public during shortages.

Area for Improvement	Almost all participating states do not have pre-scripted messaging to use during a shortage. Finding best practices for pre-scripted messaging and working with the aforementioned partners on development will allow for comprehensive and succinct messaging to be quickly disseminated during a shortage.
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Data Acquisition, Evaluation, and Implementation

Strength	To make informed decisions, there is a uniform understanding that data from diverse sources on supply and availability for petroleum is critical. Most stakeholders have identified some avenues to obtain information.
Area for Improvement	Through the workshop, stakeholders identified new ways of acquiring data and data analysis through partners (e.g. GasBuddy). However, all need to know more about the data available, how it can be used, and how it can be translated into intelligence.
Area for Improvement	Situational awareness tools for monitoring petroleum supply are not as prevalent as those that exist for the electricity subsector. Expanding existing tools or building similar tools for the oil and natural gas subsector will allow for real-time tracking and monitoring.
Area for Improvement	Sharing information may be impeded due to state and federal regulations around data protection. Need a more robust understanding of state regulations, federal resources/assistance, limitations.
Area for Improvement	Redundancy of data sources was not something many participating states had previously planned for. Having multiple sources for data, even if not commonly used, will aid states if they encounter a roadblock with accessing data in an emergency.

Prioritization, Policy, and Contracts

Strength	Workshop participants were able to identify how prioritization had occurred in the past, including pros and cons of each instance, as well as pros and cons for the application of different policies and contracts.
Area for Improvement	Petroleum stakeholders need to identify strategies for educating and working with elected and appointed officials on identifying prioritization criteria, pre-event.
Area for Improvement	There is not a standard definition of critical infrastructure but developing a holistic definition within the region will help in prioritization, situational understanding during and event, and pre-planning.
Area for Improvement	Many existing emergency contracts in the region are not resilient enough to be relied on during a major disaster. Examining best practices and creating a standard in the region will help each participating state establish more resilient contracts.
Area for Improvement	Quickly actionable guidance on waivers is limited. Developing a waiver playbook with templates and supplemental information will assist states in applying each waiver quickly and correctly.