Oregon Fuel Action Plan

Improving Resilience in the State of Oregon

Deanna Henry
Emergency Preparedness Manager

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Awards Grants to 50 States – Fall 2009
To enhance state government energy assurance and resiliency

Oregon Department of Energy (ODOE)

- Partnered with the Oregon Public Utility Commission (OPUC) and the Oregon Department of Geology and Mineral Industries (DOGAMI)
- Assessed seismic vulnerabilities and earthquake impacts on critical energy infrastructure from a 9.0 Cascadia Subduction Zone (CSZ) earthquake
- Coincided with the state’s development of the Oregon Resilience Plan

USDOE Definition: Resilience

“The ability of the energy critical infrastructure to absorb, adapt to, and/or rapidly recover from a potentially severe and disruptive event”
Oregon Imports 100 Percent of the State’s Refined Petroleum Products

- Washington refineries supply more than 90 percent
  - About 75 percent by Olympic Pipeline to Oregon
  - Remaining product by tanker ships to Oregon
  - Portland Fuel Hub – located on liquefiable soils
    *anticipate significant fuel supply loss*

- Utah refineries supply less than 5 percent to eastern Oregon communities

- California refineries supply less than 5 percent to southern Oregon communities
• Annual fuel imports estimated at three billion gallons

• Six day fuel delivery cycle

• Product delivered throughout Oregon by pipeline, barges, and tanker trucks

• Anticipate significant impacts to distribution system post Cascadia
Only 3 of the hundreds of fuel tanks at the Portland fuel hub likely to survive Cascadia

Marine docks receiving fuel will be damaged with moderate earthquake

Olympic Pipeline built in the 1960s without seismic design standards

Tank under construction to address liquefaction concerns.

DOGAMI Study Sites Aging Petroleum Infrastructure
Oregon Fuel Action Plan

- Identifies ODOE authority and responsibilities to control and direct the state’s overall response to petroleum emergencies
- Provides coordination structure for federal, state, county, tribal, and petroleum industry partners
- Provides structure for fuel allocation that identifies pre-approved priority users of fuel and user responsibilities
- Identifies state and county priority lifeline routes to support fuel deliveries
- Pre-designates Fuel Points of Distribution (FPOD) for receiving emergency fuel
- Plan on ODOE website - www./Oregon.gov/ENERGY
<table>
<thead>
<tr>
<th>Action 1</th>
<th>Action 2</th>
<th>Action 3</th>
<th>Action 4</th>
<th>Action 5</th>
<th>Action 6</th>
<th>Action 7</th>
<th>Action 8</th>
<th>Actions 9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Notifications</td>
<td>- ODOE Fuel Emergency Outlook Web Page</td>
<td>- Assess impacts to petroleum infrastructure</td>
<td>- Assess fuel availability in Oregon</td>
<td>- Identify &amp; obtain fuel source</td>
<td>- Issue voluntary fuel conservation measures</td>
<td>- Obtain temporary environmental operational, and safety waivers as needed to ensure the timely delivery of fuel</td>
<td>- Review &amp; approve/deny fuel requests (ESF Primary State Agencies, counties &amp; tribes)</td>
<td>- Allocate fuel to support recovery activities</td>
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<tr>
<td>Activate ODOE AOC</td>
<td>- Public Information Campaign – social media</td>
<td>- Estimate timeline for repairs</td>
<td>- Assess 18 state ESFs, counties, and tribal fuel needs</td>
<td>- Identify viable fuel delivery options into Oregon</td>
<td>- Issue mandatory fuel conservation measures</td>
<td>- Allocate fuel to approved state agencies, counties &amp; tribes</td>
<td>- State Recovery Coordinating Team</td>
<td>- Governor’s Recovery Cabinet</td>
</tr>
<tr>
<td>Succession &amp; Authorities</td>
<td>- News conferences</td>
<td>- Provide fuel sector info &amp; status updates</td>
<td>- Determine state &amp; regional fuel priorities</td>
<td>- Identify viable options for dispensing fuel</td>
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<td>- Odd/Even Fuel Allocation</td>
<td>- Odd/Even Fuel Allocation</td>
<td>- Terminate fuel recovery activities as appropriate</td>
</tr>
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<td></td>
<td>- Telephone Information Center</td>
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<td>- Governor’s Disaster Cabinet</td>
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Oregon Fuel Action Plan: 9 Priority Actions
Challenge – Allocating fuel to emergency and essential service providers in the state involves 120 state agencies, 36 counties, 240 cities, and 9 federally-recognized tribes.

Standardized Structure – Identifies three categories of priority fuel users:

- 18 ESF Primary State Agencies
- 36 Counties
- 9 Federally-Recognized Tribes
INITIAL AIR RESPONSE ACTIVITIES

Required Support: Federal, Military, and Industry

**Bulk Fuel Source – Outside Region**

• Bulk fuel “pushed” into the federal Incident Support Base - Redmond Municipal Airport

• Initial daily bulk fuel push into Oregon
  - Unleaded gasoline – est. 75,000 gallons
  - Diesel – est. 400,000 gallons

• ODOE directs fuel movement from federal ISB to State Staging Areas and to the pre-designated fuel points in the impacted communities
• **State Lifeline Routes** – Guide initial repairs on the transportation, power, and communication systems to support fuel delivery

• **County Lifeline Routes** – Counties to identify local priority routes that connect to state lifeline routes

• **Fuel Points of Distribution (FPOD)** – Counties pre-designate FPODs to receive emergency fuel supplies

• **Marion County Example:**
  - Identified Tier 1 priority routes connecting to state lifeline routes
  - Pre-designated 9 FPODs to receive emergency bulk fuel supplies

*ODOE has fuel data from 26 of 36 counties*
Fuel Strategy: Oregon Coast

**U.S. MARITIME ADMINISTRATION (MARAD) ASSETS**

*Fuel Source: Outside Region*

**Maritime Assets** – Deliver bulk fuel and operate portable fueling points along the Oregon Coast
- Ready Reserve Force ships out 7 – 10 days of notification
- Larger MARAD vessels ship out within 30 days of notification

**Foreign Vessels** – Lift Jones Act to allow foreign vessels to deliver bulk fuel to Oregon ports
- Superstorm Sandy – Foreign vessels shipped 115 million gallons of fuel to ports in New York and New Jersey
VIABLE CRITICAL INFRASTRUCTURE

Working Transportation, Power & Communications Systems

Fuel Source: Pasco Distribution Terminal-Petroleum Industry

- Reliant on petroleum industry to meet fuel demands
- Obtain temporary waivers to ensure timely fuel movement
- Implement voluntary/mandatory fuel conservation measures
- Implement Odd/Even Fuel Allocation Program if needed
- Implement public information campaign to reduce fuel consumption

➢ Apply fuel strategy for Central/Eastern Oregon statewide to meet fuel demands for an extended power outage with working transportation systems
Oregon Fuel Action Plan: In Progress

JANUARY 25, 2018 FUELING ANXIETY TABLETOP: GAP IDENTIFIED

• Need for ODOE to assist counties with developing local fuel management plans

• ODOE works with the Oregon Fuels Association and member companies to identify strategies for local fuel management (acquisition, storage, distribution) post Cascadia

  ➢ Presented Oregon Fuel Action Plan at OFA Conference (July 2018)
  ➢ Survey completed of OFA member companies (November 2018)

• ODOE to review survey results

• ODOE to facilitate meetings between counties and fuel distributors as appropriate to assist in local fuel management plan development
Alternate Fuel Hub: Post Cascadia

JANUARY 25, 2018 FUELING ANXIETY TABLETOP: GAP IDENTIFIED

• Need to identify an alternate location for a Fuel Hub if industry determines the existing location is unsalvageable post Cascadia

• Industry Requirements for Alternate Fuel Hub:
  ➢ Upriver on stable soils within close proximity to current location
  ➢ Access to waterway
  ➢ Access to rail systems
  ➢ Government support
Oregon Fuel Action Plan: In Progress

**Fuel Distribution** – Working with the Oregon Fuels Association and member companies to develop a statewide fuel distribution plan

**Propane** – Working with the Oregon Propane Association to identify strategies for the use of propane to support response and recovery activities

**Barges** – Working with the Port of Portland and barge companies to identify strategies for using barges to store, deliver, and dispense fuel

**Rail** – Working with the rail companies to identify strategies for using rail to store, deliver, and dispense fuel