Oregon Department of **ENERGY**

Energy Security Plan
House Interim Committee on Emergency Management, General Government, and Veterans

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OREGON ENERGY SECURITY PLAN

Plan Overview

- Assess threats to Oregon's energy systems (primarily natural hazards):
  - Electricity system
  - Liquid fuels infrastructure
  - Natural gas systems
- Includes comprehensive Oregon energy systems profile, risk assessment, and mitigation approach to reduce risks
- Energy emergency response planning
- Developed in coordination with PUC, stakeholder engagement, and technical work by specialty consultants

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OREGON ENERGY SECURITY PLAN

Guiding Principle

To ensure a reliable and resilient supply of energy at an affordable price – through efforts to identify, assess, and mitigate risks to energy infrastructure and to plan for, respond to, and recover from events that disrupt energy supply.

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DEVELOPMENT STRATEGY

The Plan brings together relevant energy information into a single document that **evaluates** Oregon's energy security status and **provides a roadmap** to improving energy security and resilience over time.

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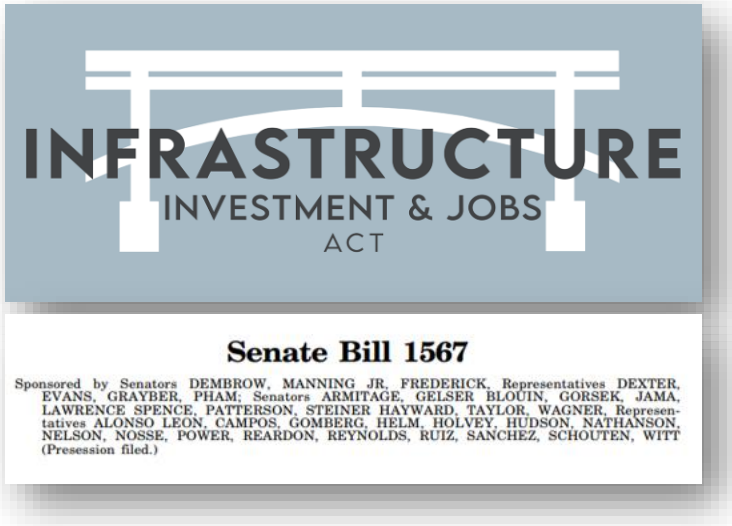
Required Contents of State Energy Security Plans

1. Address all energy resources and regulated and unregulated energy providers
2. Provide state energy profile to include an assessment of energy production, transmission, distribution, and end-use
3. Address potential hazards to the electricity, liquid fuels, and natural gas sectors (physical and cybersecurity threats and vulnerabilities)
4. Provide risk assessment of energy infrastructure and cross-sector interdependencies
5. Provide risk mitigation approach to enhance reliability and end-use resilience
6. Address multi-state regional coordination, planning, and response



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Threats and Hazards Assessment Process

- Analysis organized by geographic region, using the Department of Emergency Management's six region structure
- Primarily assessed natural hazards, plus physical and cybersecurity risk
- Threats to each energy system analyzed: electricity, natural gas, liquid fuels
- Data comes from various sources, including consultation with energy companies
- Results are standardized to help with comparative risk analysis

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Threats and Hazards Results Highlights

- Earthquake risk to liquid fuel systems is higher in western regions
- Winter storm risk to electrical systems is higher in Willamette Valley region
- Physical attack risk to natural gas system higher in Portland metro and NW regions
- Cybersecurity risk consistent across state
- Interdependencies between lifeline systems is important: energy is vital to operations of everything else

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Mitigation Concepts

Concepts are specific to energy sectors, are appropriate to the risks for each region in Oregon, and include physical and operational measures.

Specific Ideas

- Fuel resilience: geographic diversification, backup power at fuel stations
- Interdependencies between lifelines: energy planning/backup power for critical facilities (e.g., water/wastewater, fire stations, hospitals, etc.)
- Wildfire and winter storm resilience of electrical transmission and distribution systems
- Support continued efforts on physical security and cybersecurity

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For more information:
www.oregon.gov/energy/safety-resiliency

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Extra Slides

- Presents an overview of the **state's energy infrastructure**
- **Assesses threats and hazards** that increase risk to energy infrastructure
- Proposes **mitigation measures** that the state and its partners can implement to reduce risk
- **Identifies primary threats**: natural hazards and cybersecurity
- Creates a new fuel storage analysis **GIS tool**
- Hiring new **Energy Security Manager**
- Continued **coordination** with partners
- **Coming soon!** September 30, 2024

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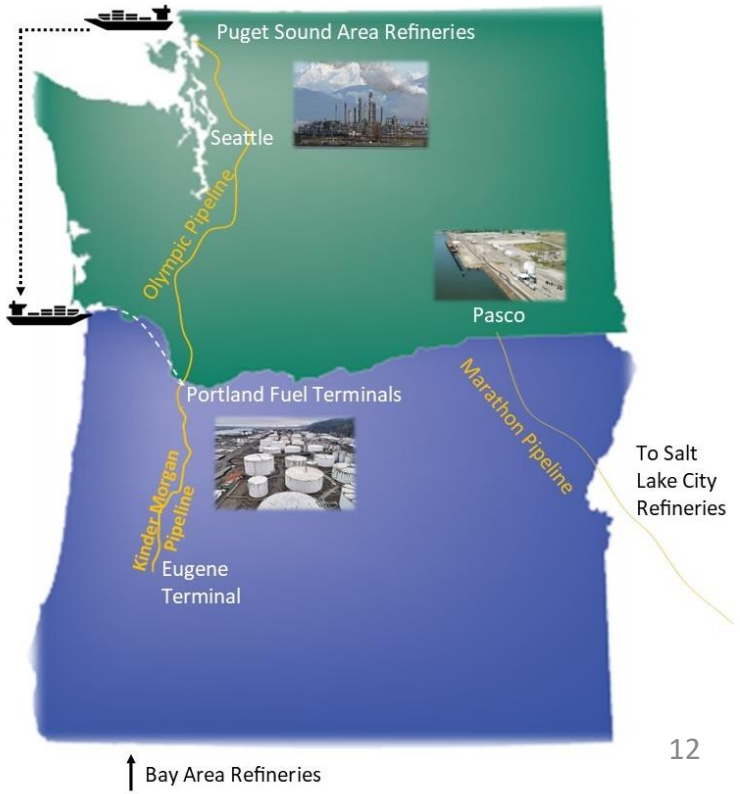
LIQUID FUEL DISTRIBUTION "BLUE SKY DAYS"

- Approximately 90% of refined petroleum products used in Oregon originate from four major refineries in Washington
- Fuel is shipped to Oregon via the Olympic pipeline, barge, and rail
- Most of that fuel passes through the Port of Portland fuels terminals
- From there:
  - Jet fuel via pipeline to PDX;
  - Gasoline and diesel via pipeline to Eugene terminal; and
  - Truck distribution across Oregon
- Approximately 10% of refined petroleum product used in Oregon originates from refineries in Utah near Salt Lake City
  - Pipeline to Pasco, WA, then trucked into Oregon



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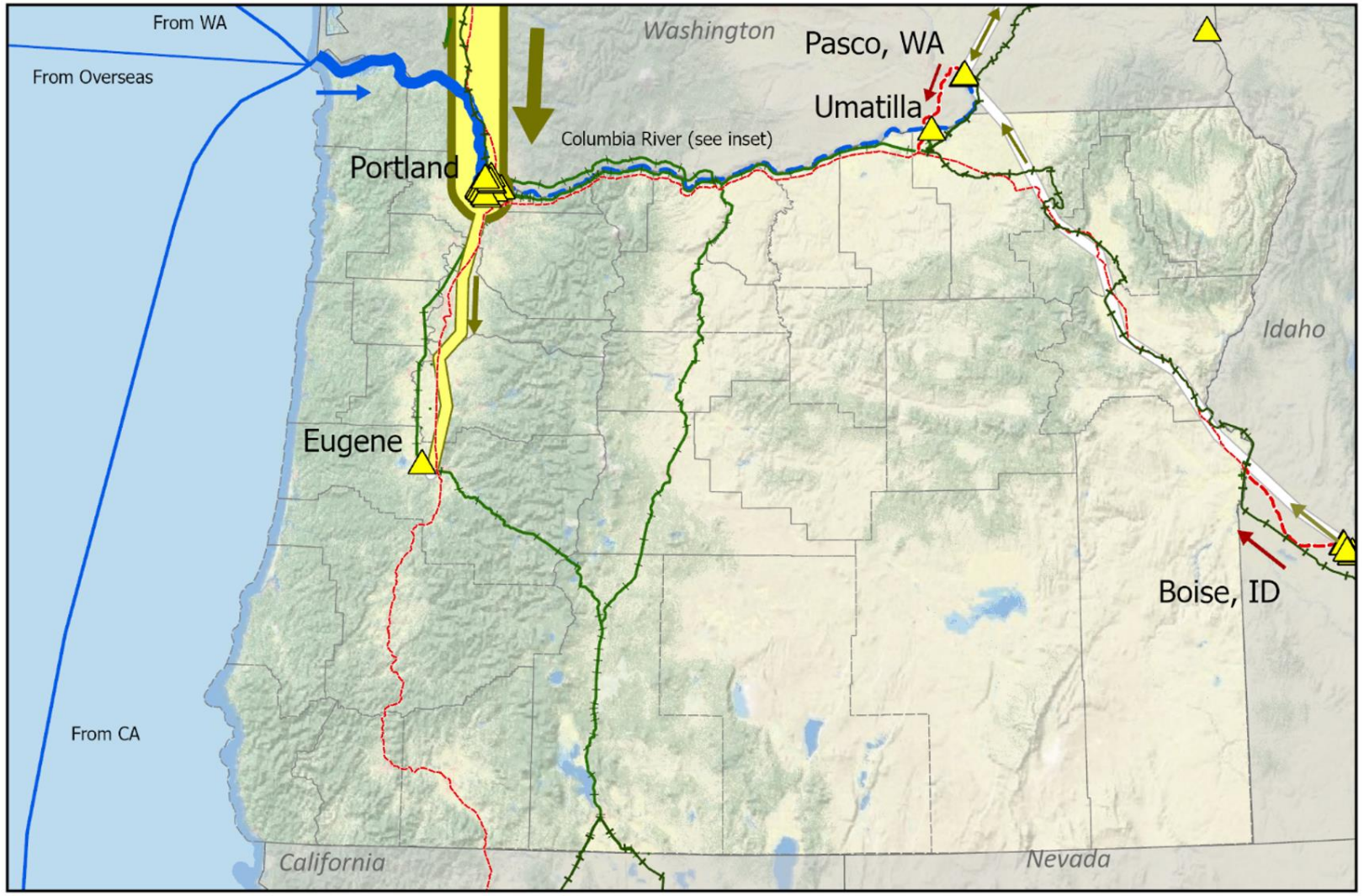
GASOLINE INBOUND TO OREGON



Share by mode

(approximate - varies seasonally and year to year)

Marine	Rail	Truck	Pipeline
(barge)			(thru)
17	<1	5	77

Flow routes

Inbound flow - percent on route

<5% 10% 30% 60%

Petroleum Terminals

Destination for most inbound flow

Counties

Other States

DIESEL INBOUND TO OREGON

Share by mode

(approximate - varies seasonally and year to year)

Marine	Rail	Truck	Pipeline
(barge)			(thru)
30	2	3	66

Flow routes

Inbound flow - percent on route

<5% 10% 30% 60%

Petroleum Terminals

Destination for most inbound flow

Counties

Other States

LIQUID FUEL DISTRIBUTION "BLACK SKY DAYS"

Emergency Fuel Response

Annual emergencies, Cascadia Subduction Zone Quake

- Local fuel issues; or affecting the entire Pacific NW

In 2022, Oregon used approximately, per day:

- Gasoline: 3.7 million gallons → 370 trucks*
- Diesel: 2.3 million gallons → 220 trucks
- Jet Fuel: 545,000+ gallons → 54 trucks

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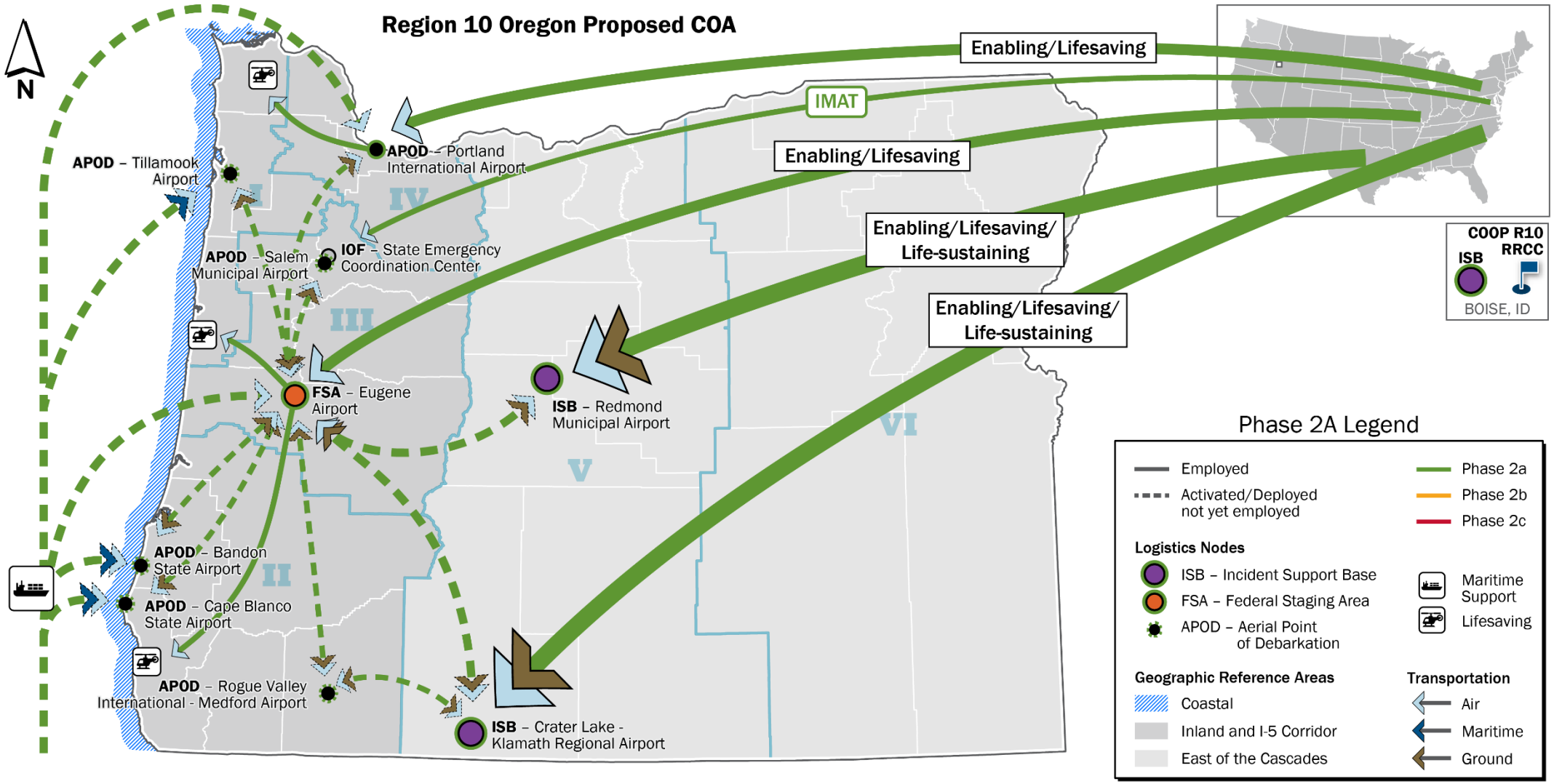
*A fuel tanker truck can hold 10,000 gallons on average.

FEMA CASCADIA QUAKE EMERGENCY SUPPLY



FEMA

Oregon Energy Security Plan: Fuel Resilience

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SB 1567 – Recommend Strategy to Increase geographic diversity of fuel storage in Oregon

Senate Bill 1567

Sponsored by Senators DEMBROW, MANNING JR, FREDERICK, Representatives DEXTER, EVANS, GRAYBER, PHAM; Senators ARMITAGE, GELSER BLOUIN, GORSEK, JAMA, LAWRENCE SPENCE, PATTERSON, STEINER HAYWARD, TAYLOR, WAGNER, Representatives ALONSO LEON, CAMPOS, GOMBERG, HELM, HOLVEY, HUDSON, NATHANSON, NELSON, NOSSE, POWER, REARDON, REYNOLDS, RUIZ, SANCHEZ, SCHOUTEN, WITT (Presession filed.)

- Prioritize most vulnerable and isolated communities to Cascadia impacts
- Assess viability of expanding storage capacities at public facilities
- Assess viability of partnering with private-sector companies that support state response-recovery efforts to expand storage capacities at existing fuel sites
- Evaluate seismic resilience of existing fuel storage facilities considered for expansion
- Identify-mitigate barriers to implement geographically distributed fuel network


State Motor Pool


ODOT Maintenance Yard


City of Corvallis Public Works