4 February 2025

BEFORE OREGON HOUSE COMMITTEE ON EMERGENCY MANAGEMENT, GENERAL GOVERNMENT, AND VETERANS – HB 2581

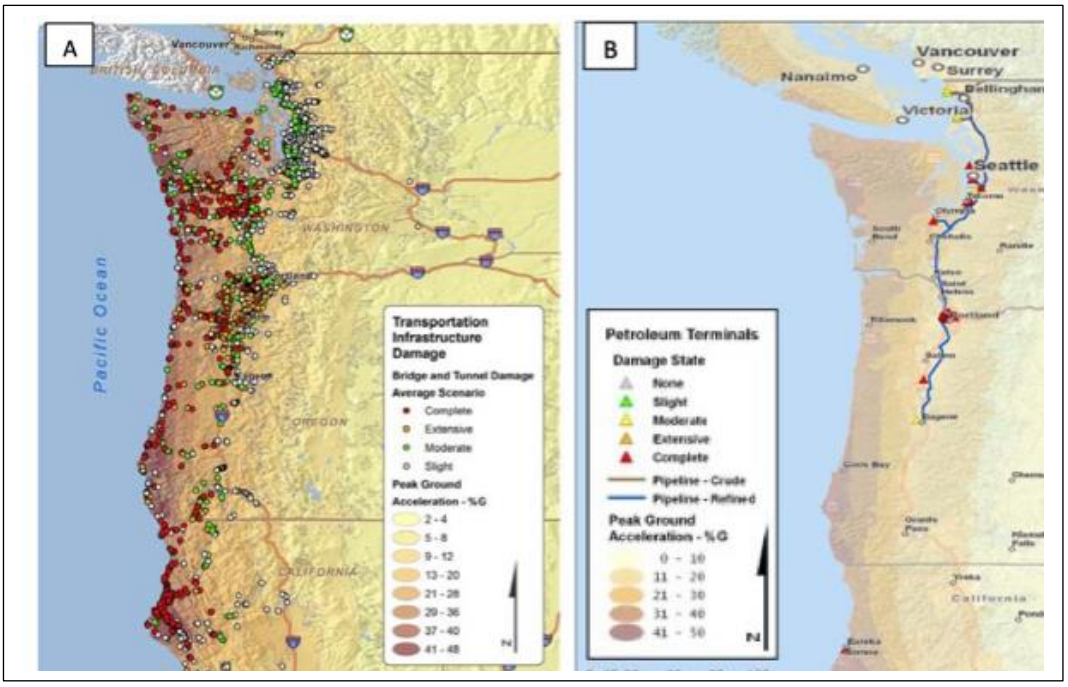
Chair Representative Thuy Tran
Vice-Chair Representative Dacia Graber
Vice-Chair Representative Rick Lewis
Members of the Committee

RE: HB 2581 Expands the Duties of the State Resilience Officer

Situation Report
Our Oregon Resilience and Emergency Response Advisor correctly advised the Committee on 30 January 2025* that based on the known 10,000-yr history of the West Coast, the next seismic megathrust event will devastate the environment and the economy on a national scale never seen before. There is no evidence that this is an exaggeration. With support from the Committee but otherwise no staff, no budget, no authority, expanding her duties seems less promotion but more like delegated stress, in effect.

We can help by partnering with the Committee and with the Advisor to expand our awareness of facts and data that will guide our strategic Oregon response. Naturally we know that preparing infrastructure in advance greatly reduces after-the-fact costs. Investing in durability before-the-fact reduces demand on public emergency recovery cost by at least 10 to 1. Inflationary risk can be controlled. With advanced planning for energy self-sufficiency first responders can act without waiting for infrastructure rebuild.

There is evidence that the geographic destruction will be greater in Washington than in Oregon. Our Oregon Resilience Plan states, "We believe that it would be beneficial for both states to work together at a regional level to address the common challenge of resilience to a region-wide seismic event."

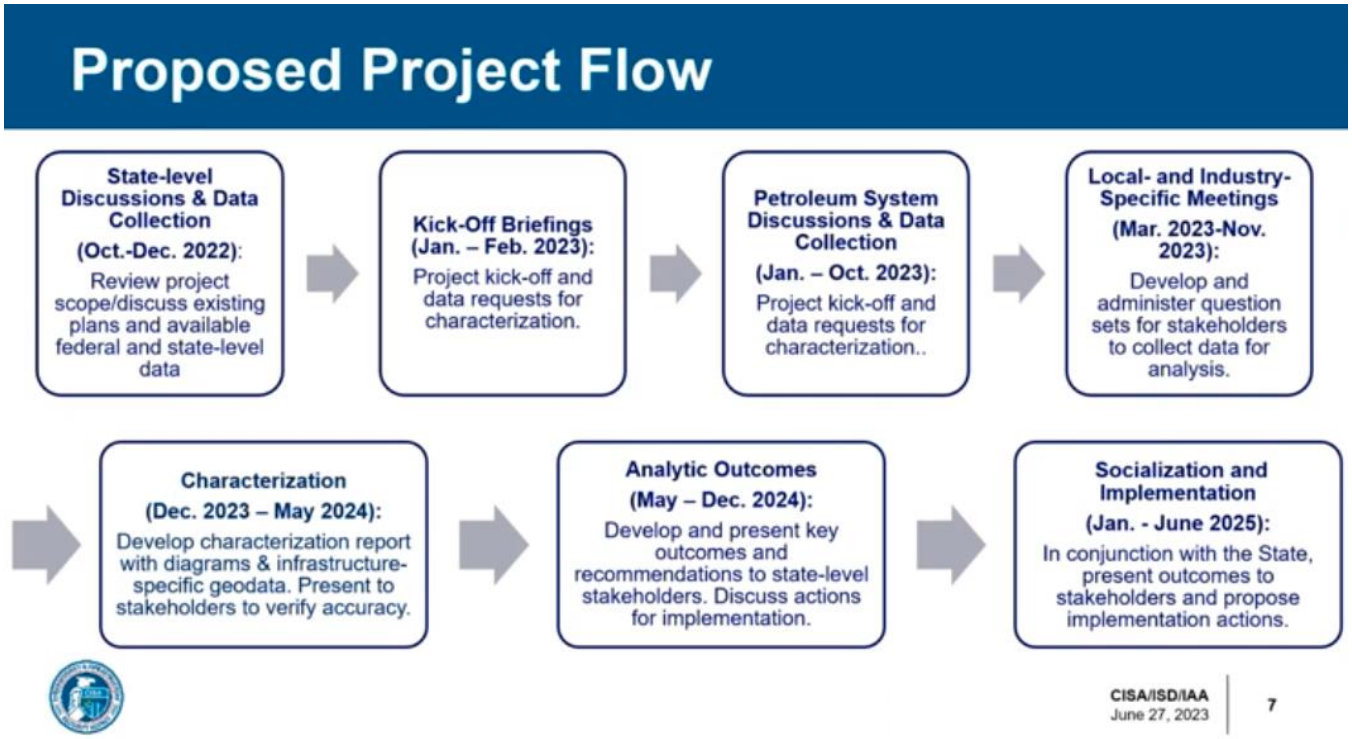


Credit:
Seismic Alaska

Single pipeline.

With Cascadia M8, damage is complete.

A collaborative effort has started in Washington but has not formally reached Oregon, although the Seismic Vulnerability Assessments under Oregon DEQ auspices are making initial progress.



This WASHINGTON LAST MILE FUELS REGIONAL RESILIENCY ASSESSMENT PROGRAM (RRAP) is conducted by DHS Cyber and Infrastructure Security Agency, with leadership from he Infrastructure Assessments and Analysis (IAA) Group under CISA's Infrastructure Security Division (ISD).

CISA Region 10 Consists of Alaska, Washington, Idaho, and Oregon.

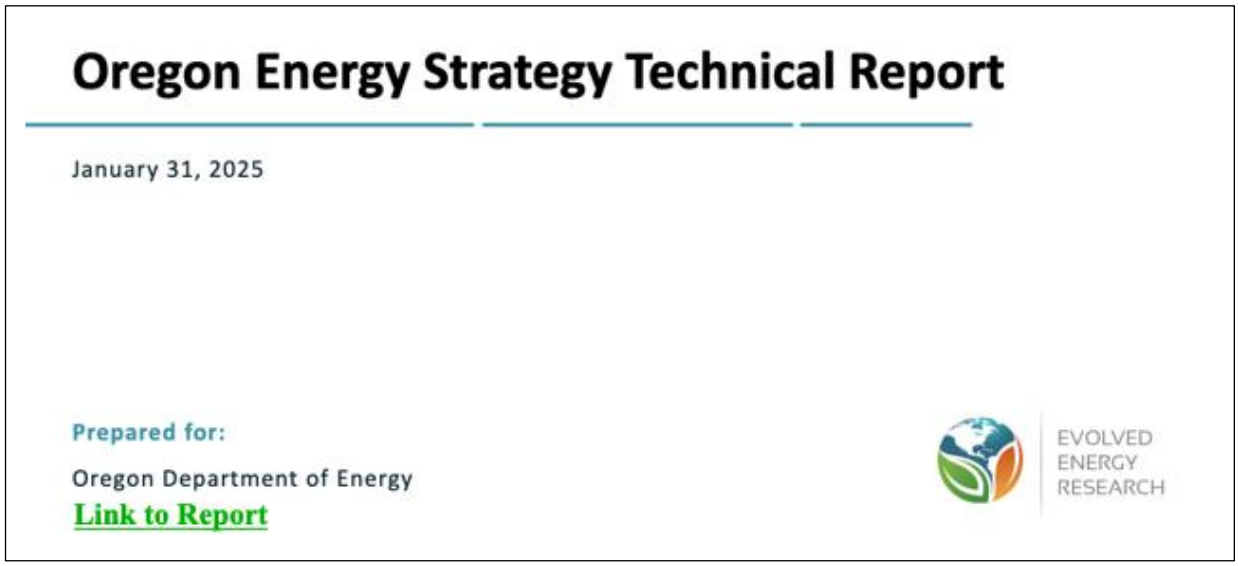
The latest available status report is given in this 60-minute streaming video featuring a June 27, 2023 teleconference later posted on 12 October 2023. Significant observations are made:

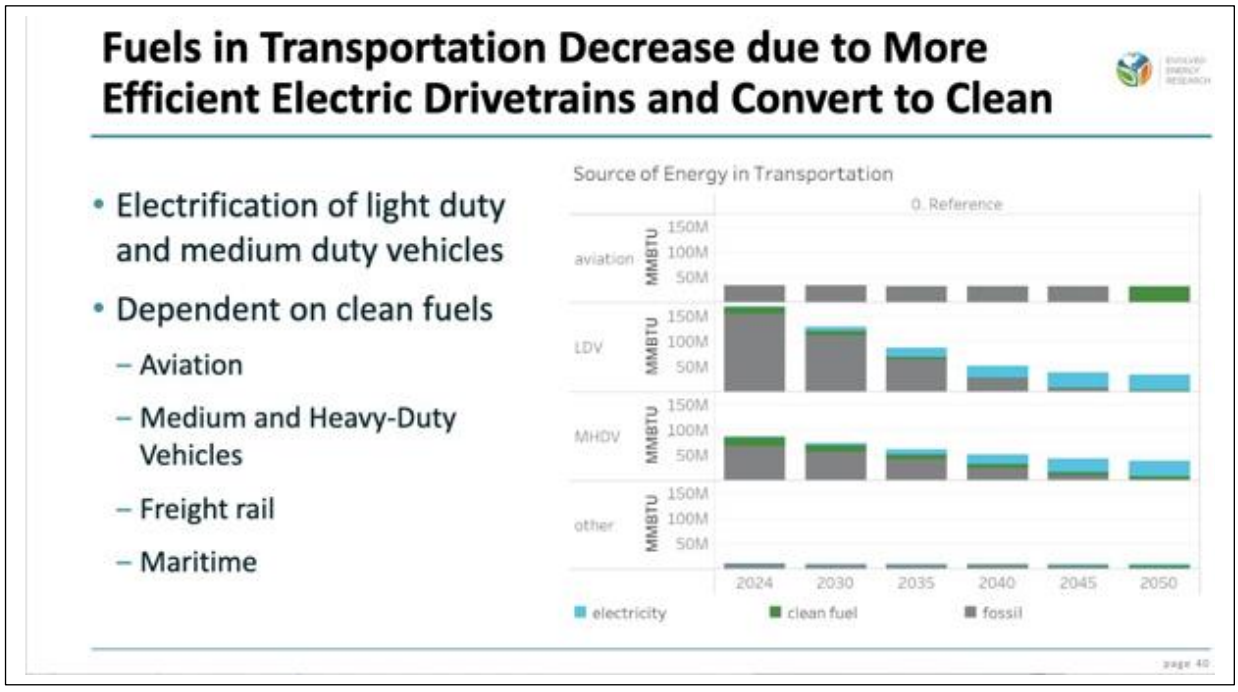
- This is year 3 of a 3-year assessment period.
- Resilience Enhancement Options (REO) will be identified.
- Pipelines have been unearthed by landslides.
- Contingency Fuel Points of Distribution (F-PODs) will be identified.
- Washington will rely on Federal support for catastrophic incidents.
- FEMA and DoD beginning to engage (June 2023).
- Additional National Petroleum Reserve proposed in Salt Lake City.
- Fuel distribution by "book and ledger" after power failure.
- Local fuel wholesale contracts often need catastrophe response clauses.
- Price-gouging was discussed.
- Vulnerability of the Olympic Pipeline was noted, plus consideration of a more durable second pipeline.

- Washington ships fuel to California under favorable economic terms.
- Oregon fuel is sourced to Washington (Cougar Den)

The IAA group has employed Idaho National Labs to lead the Fuels RRAP. A catch-up on current status is being requested (either to this NGO partner or to the Oregon House Committee).

So far, the recent Oregon DOE Energy Strategy Technical Report does not factor the Cascadia M8 critical infrastructure disruption but could. This is less a mere scenario and more an inescapable future.





Clean fuels for Aviation are expected to lag those for Light Duty Vehicles (LDVs like cars and light trucks) as well as Medium and Heavy-Duty Vehicles (MHDVs). Energy in Transportation is expected to attain clean non-emitting goals in 2050.

Fuels in Oregon Transportation Decrease …..

Assume Cascadia M8 in 2030 (inevitable in future, not just a scenario)

Oregon Unable To Depend On Rebuild of Washington Critical Fuels Infrastructure

- Seems to be no WA Critical Infrastructure recovery timeline
- May result in Military Department intervention
- CEI Hub critical infrastructure compromised (90% of Oregon fuel supply)
- Marginal excess capacity in Midwest refineries is not known
- Salt Lake City National Fuel Reserve not established
- OEM can't access emergency fuel – recruit EVs (like Amazon Rivian vans)
- Oregon emergency transition to expanded electricity grid
- Oregon emergency demand/acquisition of LDV, MHDV, Rail
- Maintain carbon fuel fleets where possible

Fuels in Oregon Transportation Decrease …..

Excess Capacity of Upper Midwest Refineries is Unknown

https://www.eia.gov/energyexplained/oil-and-petroleum-products/refining-crude-oil-refinery-rankings.php

U.S. Refineries, Operable Capacity as of January 1, 2023, Upper Midwest

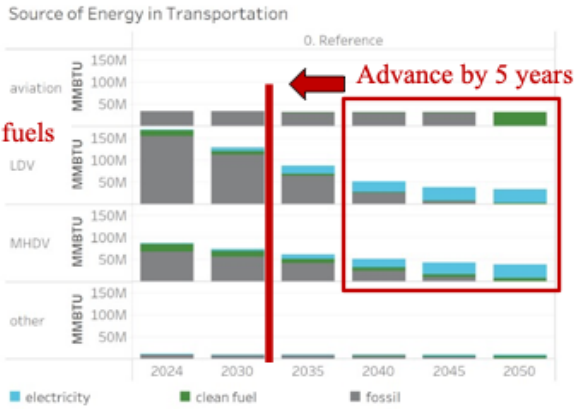
Corporation	Company	State	Site	Barrels per calendar day	Excess Capacity
Marathon Petroleum Corp	Tesoro Refining & Marketing Co	Utah	Salt Lake City	66,000	
Phillips 66 Company	Phillips 66 Company	Montana	Billings	66,000	
CHS Inc	Cenex Harvest States Coop	Montana	Laurel	62,500	
ExxonMobil Corp	Exxonmobil Refining & Supply Co	Montana	Billings	61,500	
Chevron Corp	Chevron USA Inc	Utah	Salt Lake City	54,720	
HF Sinclair Corp	HF Sinclair Woods Cross Refining LLC	Utah	Woods Cross	39,330	
FJ Management Inc	Big West Oil Co	Utah	North Salt Lake	31,664	
Calumet Specialty Products Pa	Calumet Montana Refining LLC	Montana	Great Falls	24,600	
Silver Eagle Refining Inc	Silver Eagle Refining	Utah	Woods Cross	15,000	

Fuels in Transportation Decrease due to More Efficient Electric Drivetrains and Convert to Clean

Edited

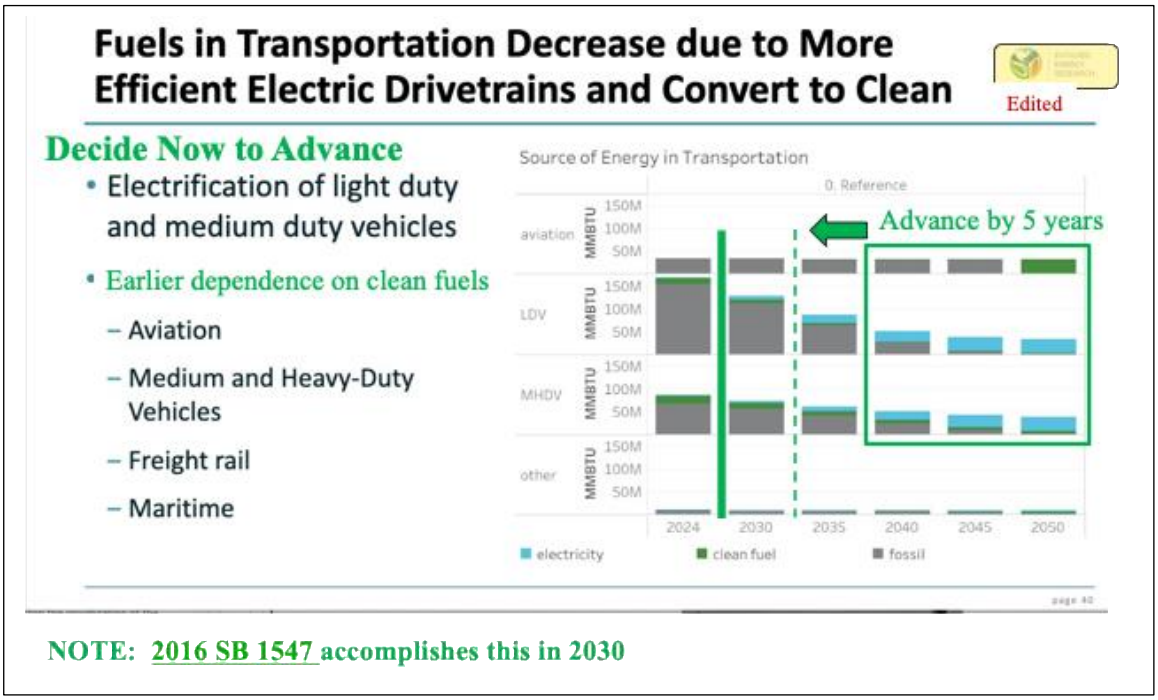
Assume Cascadia M8 in 2030

- Electrification of light duty and medium duty vehicles
- Forces earlier dependence on clean fuels
  - Aviation
  - Medium and Heavy-Duty Vehicles
  - Freight rail
  - Maritime



Whenever the next Cascadia event occurs it will force a lengthy and costly rebuild of carbon fuel logistics infrastructure, leading to cost trades favoring less costly infrastructure that avoids commodity fuel handling. For example, the electricity grid does not involve costly high-maintenance commodity fuel management and delivery.

Considering the inevitability and the sizeable cost penalties for emergency responses we see in the kinds of demands faced by FEMA (tens of $B per episode), we can consider the avoided cost when deciding to transition to less vulnerable more durable infrastructure before-the-fact.



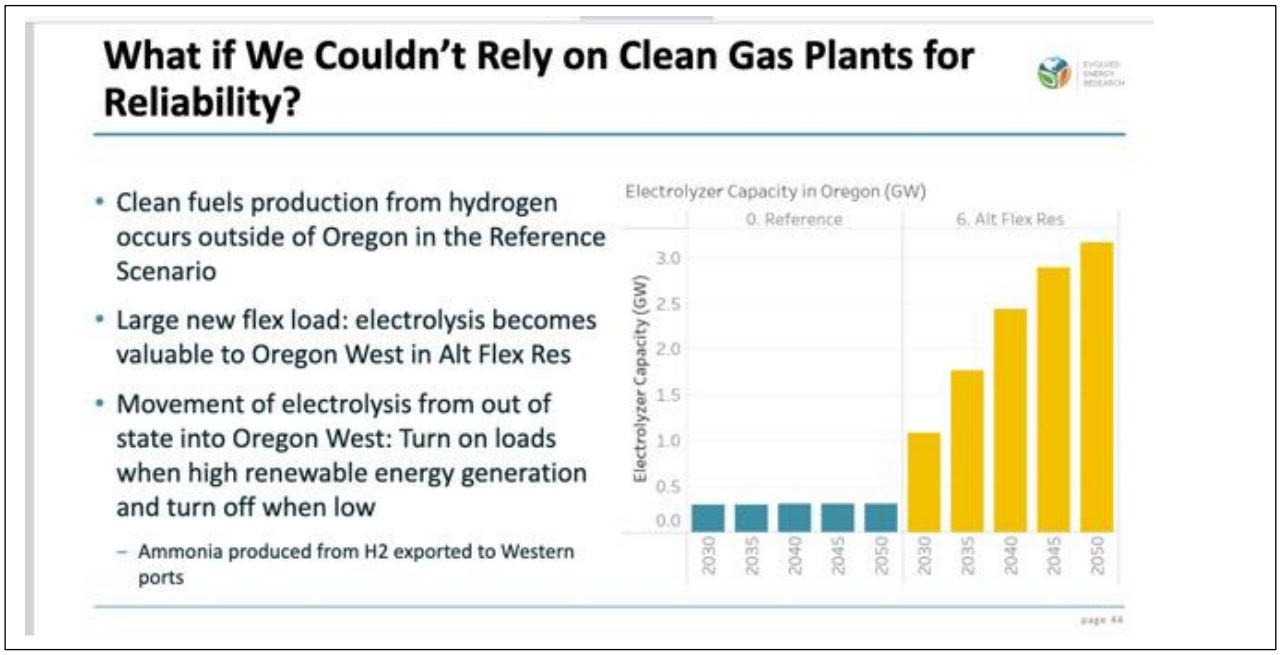
NOTE: 2016 SB 1547 accomplishes this in 2030

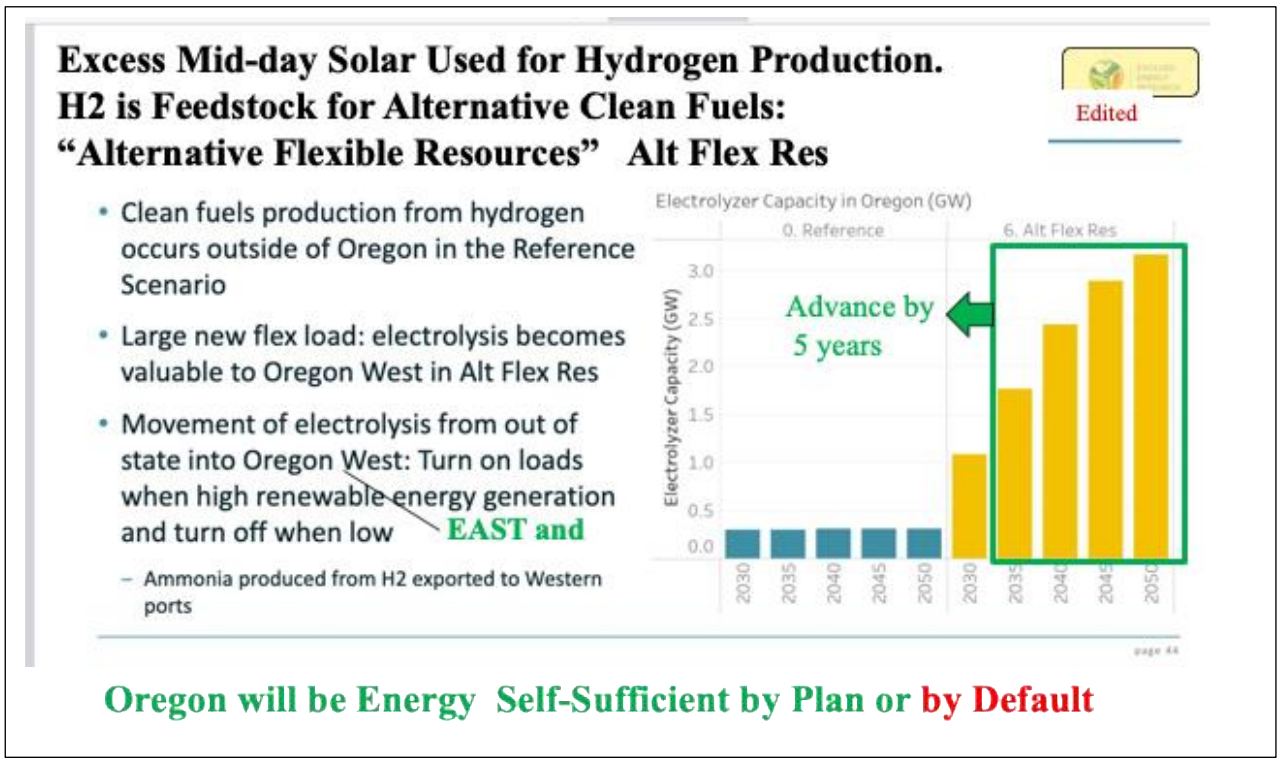
Fuels in Oregon Transportation Decrease …..

Plan to Advance to More Efficient Electric Drivetrains

- Planning is easier than waiting for the inevitable then reacting under duress
- More efficient energy use means less total energy needed for same benefit
- Less energy needed means energy goals achieved sooner
- More durable critical infrastructure ahead of Cascadia M8
  - Means OEM not impeded by failed fuel infrastructure
  - Cost of upgraded lifeline infrastructure is 1/10 of post-M8 disaster $$$
  - Lives saved by averting predictable service delivery barriers typically confronting first responders

Natural Gas demand in western Washington will remain unchanged after Cascadia but lifeline infrastructure restoration costs there will spike the cost of gas in Washington and Oregon.





*NOTE

The Bird Flu agenda as conducted by the Oregon House Emergency Management Committee on 30 January 2025 was the most effective peer-discussion kumbaya in the history of government. Not a single rash trigger word was uttered. This establishes a "no guff" precedent that should please continue. The video record from this meeting constitutes a training film for how to collaborate in public, as is.