

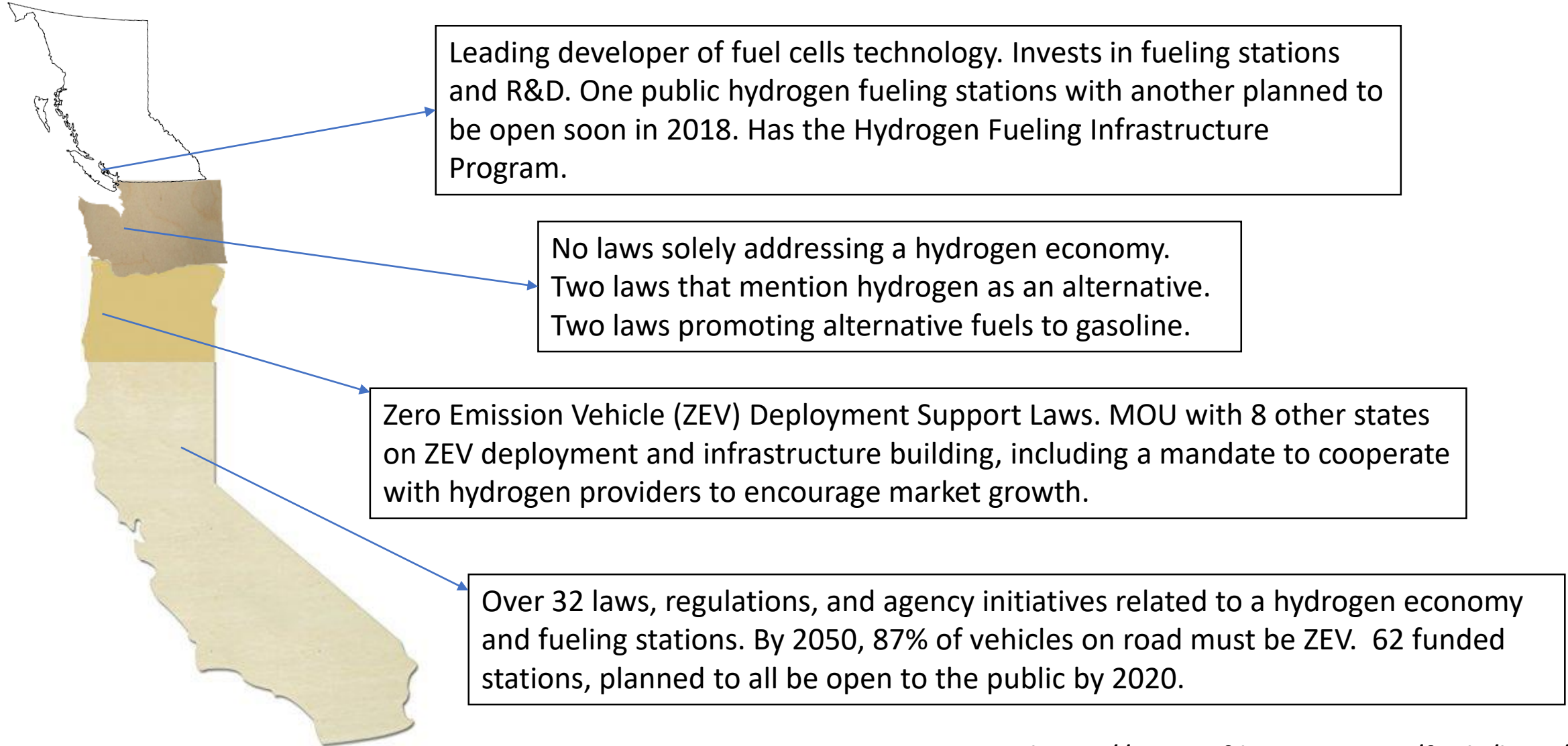
# Closing the Hydrogen Economy Policy Gap

A White Paper by Jonathan Witt

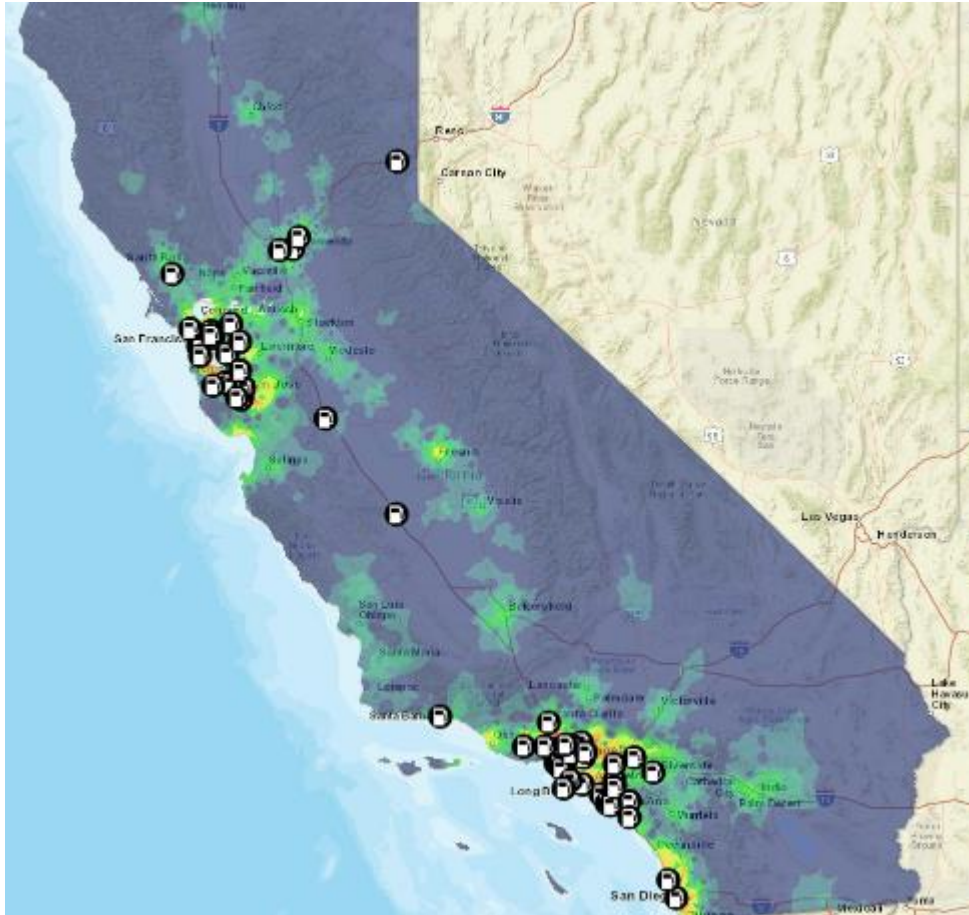
CEI Fellow

Product of Lasting Value

# Map of Government Policies and Initiatives



# California Hydrogen Fueling Station Map: A Role Model for Hydrogen Policy



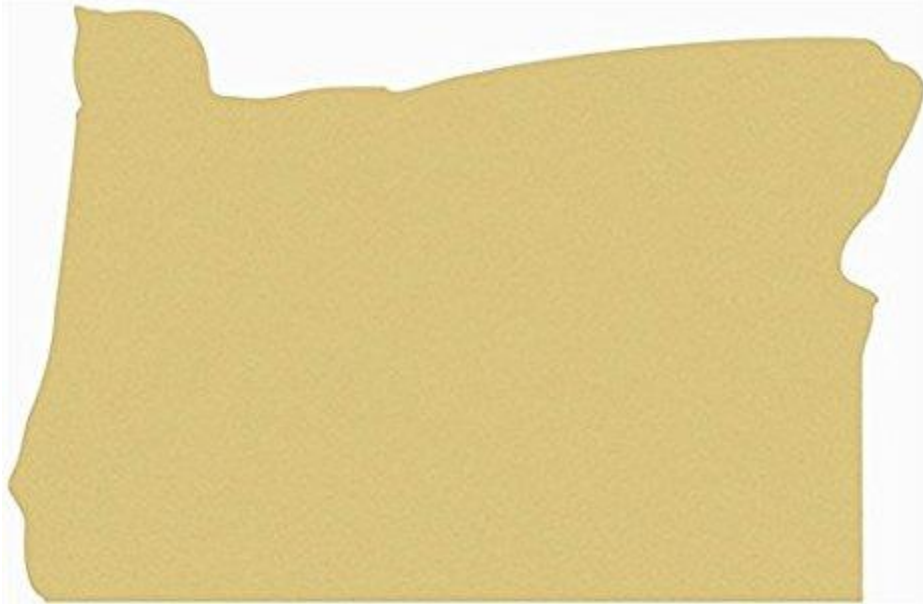
- California has committed up to \$20 million a year up to 2024 for building up to 100 hydrogen fueling station.
- By 2050, 86% of vehicles will be ZEV.
- Currently 62 stations.
- Report on the state of fuel cell electric vehicles and fueling stations due every June and recommendations to the California Energy Commission made.

# British Columbia



- Investing in a hydrogen fueling station network.
- Using Powertech Labs fueling stations in Surrey, BC.
- Claims to be world leader in funding fuel cell research and is considered a major breakthrough market for fuel cell car manufacturers.
- Will build up infrastructure in the Lower Mainland first.
- The Hydrogen Fueling Infrastructure Program is managed by the Canadian Hydrogen & Fuel Cell Association.
- Second station to be complete 2018.

# Oregon



- Has set a target competitiveness of < \$4/gge
  - gge 1 kg H<sub>2</sub> = 1 gallon gasoline energy equivalent
- Plans to make hydrogen into ammonia to burn later to make water, nitrogen, and energy.
- Offers Alternative Fuel Loans and Clean School Bus Grants.
- State rebate program for ZEV and PHEV
- MOU with CA, CT, MD, MA, NJ, NY, RI, VT to support deployment of ZEVs through involvement in the ZEV Program Implementation Task Force. Adequate infrastructure in these states by 2025.
  - “Assess and develop potential deployment strategies and infrastructure requirements for the commercialization of hydrogen fuel cell vehicles.”
- And a few more clean air, alternative vehicles, and fuel standards laws.

<https://www.afdc.energy.gov/fuels/laws/HY>

<http://www.oregon.gov/energy/energy-oregon/Pages/Hydrogen.aspx>

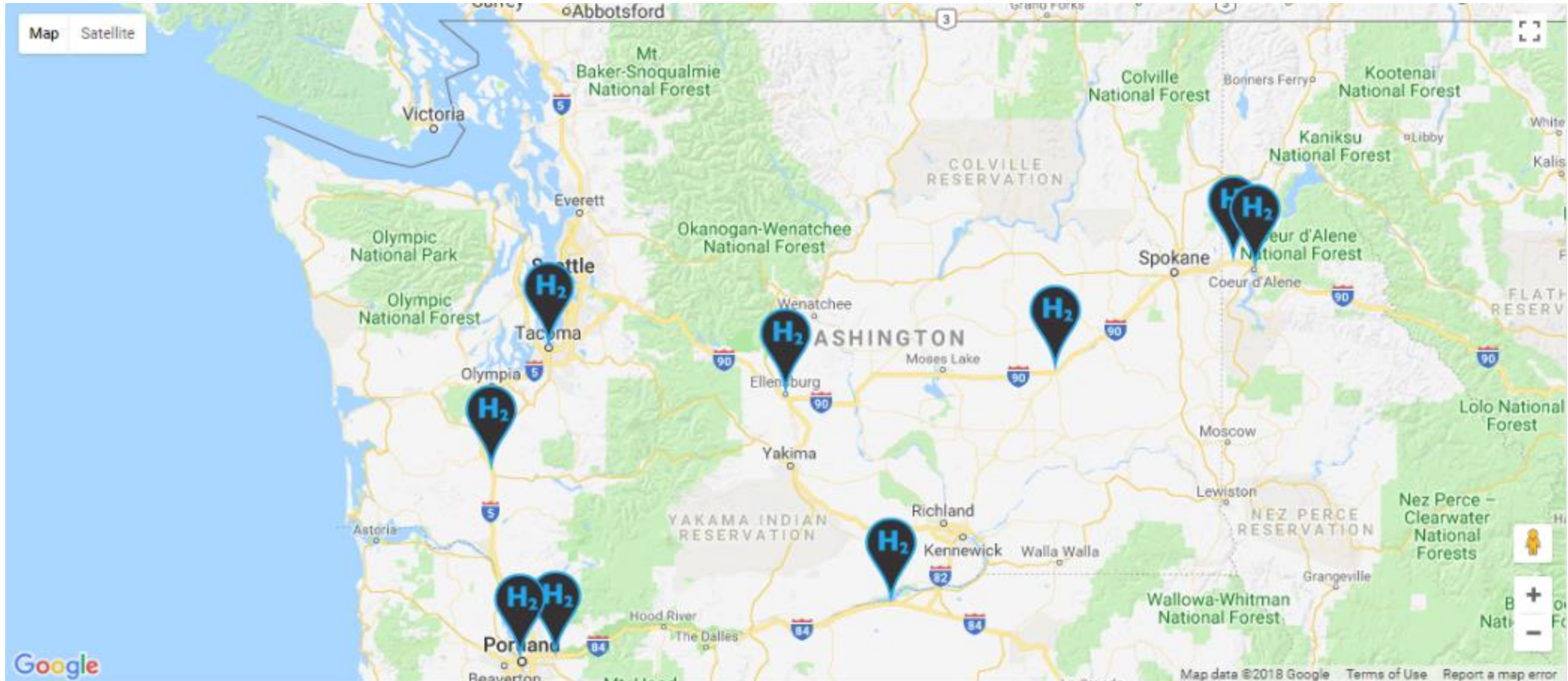
# Washington



- Alternative Fuel Commercial Vehicle Tax Credit
  - The alternatives are natural gas, propane, hydrogen, dimethyl ether, or electricity
- Alternative Fuel Vehicle (AFV) Tax Exemption
  - Exempts AFVs that use the fuels above from a tax of sales and use.
- Volkswagen Settlement Allocation
  - 15% of WA Volkswagen Mitigation Trust Fund to be used for light duty ZEV charging infrastructure.
- Low Carbon Fuel and Fuel-Efficient Vehicle Acquisition Requirement
  - WA agencies must consider buying AFVs if life time cost competitive.
  - 36 mpg target.



# Nikola Motors Primed to Expand Hydrogen



<https://nikolamotor.com/stations>

# Recommendations

- WA needs to step up its game.
- All the other west coast states and provinces have defined hydrogen infrastructure programs whereas WA has none.
- WA has no laws solely dedicated to hydrogen economy.
- WA should consider utilizing the models from these other states and join the MOU that Oregon and California are a part of.
- WA has vast resources for hydrogen electrolysis. This is an opportunity to attract businesses, jobs, and be at the forefront of a new industry.