

Hydrogen Pathway Study Recommendations

Transportation Electrification Infrastructure Needs Analysis (TEINA)

Oregon is working to reduce greenhouse gas emissions from transportation. Hydrogen and fuel cell vehicles are a promising tool to achieve a zero emissions future, and offer key operational advantages over battery-electric vehicles: longer driving range, shorter refueling times (on par with gasoline), several low and no-carbon production pathways and extended storage capabilities. Hydrogen may play a critical role in decarbonizing transportation, and there are many steps Oregon can take to develop the market for hydrogen and fuel cell electric vehicles (FCEVs). Study outcomes recommend a phased approach to prepare for the arrival of hydrogen-fueled electric vehicles in Oregon. The following describes both the recommended next steps and the leading indicators that should be reevaluated at regular intervals.

Near-Term (2022-2023)

Recommendations

- Assess hydrogen market regularly and coordinate interests
- Engage with regional stakeholders
- Support industry-led technology demonstrations and pilot projects
- Support policies enabling FCEVs and local, low or zero-carbon hydrogen production
- Ensure statewide regulations and processes enable FCEVs and hydrogen fueling infrastructure siting

Leading Indicators

- Commercial fleet activity
- Original Equipment Manufacturer (OEM) activity and interest in expanding FCEV distribution
- Major U.S. DOE or DOT funding commitments or stricter heavy-duty emission standards
- California highway corridor investments and commitments, particularly for trucking

Mid-Term (2024-2027)

Recommendations

- Establish a statewide hydrogen planning effort
- Coordinate fleet interests in hydrogen
- Coordinate a regional corridor
- Develop and invest in pilot projects
- Consider establishing targets
- Pursue federal funding opportunities

Leading Indicators

- Commercial fleet FCEV purchase announcements
- OEM intent to expand FCEV production and distribution
- Major U.S. DOE or DOT funding commitments or stricter heavy-duty emission standards
- California hydrogen highway fueling corridor development
- Local hydrogen production activity and utility engagement

Longer-Term (2028-2035)

Recommendations

- Continue to leverage the statewide hydrogen planning effort
- Continue to support regional coordination
- Transition from pilot projects to scale
- Establish a consumer and fleet awareness program

Leading Indicators

- Large scale FCEV fleet announcements
- Major fueling station network announcements
- OEM intent to expand FCEV production and distribution
- Signs of increased federal leadership in the development of a hydrogen economy