Regional Hydrogen Infrastructure Panel: The California Experience

Department of Energy
Annual Merit Review 2019

Bill Elrick
California Fuel Cell Partnership
California Fuel Cell Partnership

20 years of collaboration
<table>
<thead>
<tr>
<th>Numbers as of April 1, 2019</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel cell cars sold and leased</td>
<td>6,315</td>
</tr>
<tr>
<td>Fuel cell buses in operation in California</td>
<td>30</td>
</tr>
<tr>
<td>Retail hydrogen stations open in California</td>
<td>39</td>
</tr>
<tr>
<td>Fuel cell buses &amp; shuttles in development in California</td>
<td>22</td>
</tr>
<tr>
<td>Fuel cell trucks in development in California</td>
<td>35+</td>
</tr>
<tr>
<td>Retail hydrogen stations in development in California</td>
<td>25</td>
</tr>
</tbody>
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[https://cafcp.org/by_the_numbers](https://cafcp.org/by_the_numbers)
California’s retail market is working
MISSION

Accelerate commercialization of hydrogen and fuel cell vehicles
Preparing for the Future

- Executive Order B-48-18 targets 200 HRS by 2025 and 5MM ZEVs by 2030
- CaFCP publishes new 2030 vision for a self-sustaining California market
  - New ARFVTP solicitation concept
  - Low Carbon Fuel Standard Amendments
  - New hydrogen production facilities
  - Innovative Clean Transit regulation
  - New heavy duty fuel cell truck projects

http://cafcp.org/stationmap
California Fuel Cell Revolution

Enable market conditions to support:

1,000 hydrogen stations

and

1,000,000 fuel cell vehicles

by 2030
Image of a Successful Self-Sustaining Market

8,000 retail gas stations

≈ HD Truck Infrastructure

1,000 retail H2 stations
Summary

• California retail market open and expanding quickly – *drivers love the cars!*
• *Quickly* transition from market launch to self-sustainability
• 3 essential elements to success:
  • Strong leadership
  • Long term planning
  • Robust commitments
• Public-private partnerships critical to success
• Leverage synergies between HD & LD, as well as the grid and renewables
• Continue convergence of local, regional and global activities

*Not a question of “if”, rather “how fast”*