2021 Annual Evaluation of Fuel Cell Electric Vehicle Deployment and Hydrogen Fuel Station Network Development

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Housekeeping Items

- An email will be sent out when the webinar recording and presentation slides are posted
- Use the GoToWebinar “Questions” feature to ask questions
- Camera settings
CaFCP Members

[Logos of various companies and organizations involved in the California Fuel Cell Partnership, with a statement: "— 20+ years of collaboration —"]
Hydrogen Supply Chain Chronology, 2021 Year-to-Date

- **January 2021**, National Covid-19 surge
- **February 2021**, Severe winter storms & Covid-19 disrupts national truck freight transport, including national hydrogen supply chain & deliveries
- **March 2021**, Hydrogen supply constraints worsen
- **June – August 2021**, Record heat impacts performance of some retail fueling stations – increased fill times and short fills
- **August 2021**, Northern California liquid hydrogen distribution facility outage impacts statewide hydrogen supply and deliveries
- **August - September 2021**, Hurricane Ida impacts national hydrogen supply chain
- **October 2021**, Hydrogen supply constraints begin improving but remain short of demand until year end/beginning 2022

FCV drivers faced a year of ongoing hydrogen supply disruptions
Hydrogen Supply Chain Countermeasures

• Wholesale Investments/Improvements:
  • Linde 30+ tons per day liquid hydrogen production facility, La Porte, Texas (Began operation July 2021)
  • Air Liquide Nevada hydrogen production plants coming online in early 2022
  • Air Products 30 tons per day liquid hydrogen production facility, La Porte, Texas (Begins operation October 2021)
  • Air Products announced a $1.3B hydrogen production complex in Edmonton, Alberta, expected online in 2024
  • Investments in bulk hydrogen storage and distribution facilities in Northern California
  • Investment in hydrogen delivery trucks (For both bulk delivery and station delivery)

• Retail Station Improvements:
  • Surge in retail station technicians and support staff to better support existing infrastructure and for developing new infrastructure
  • Investment in 127 new retail hydrogen fueling stations above and beyond current 47 stations; (4 new stations opened since April)
    • Faster station development time, e.g., GoBiz Hydrogen Station Permitting Guidebook
  • Higher capacity, multiple fueling position stations are the new normal
  • Station performance and durability upgrades / countermeasures are showing great improvements, but still in progress
  • Improvements in equipment reliability continues (e.g., hardware, software and new nozzle technology)

Both supply-side issues and retail station challenges are being addressed. Station support, uptime and performance continue to improve.
https://m.cafcp.org/ (SOSS) is your friend

SAVE TIME! Check station availability status

For iOS or Android
- Save m.cafcp.org to your homepage for instant access
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