Fuel cell electric buses: a scalable solution for electrification of transit

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Hydrogen fuel cell buses are electric buses.

• Same electric drivetrain as battery electric buses
• Battery-fuel cell hybrid configuration
• Fuel cell module is on-board battery charger
• Most OEMs offer common platform for their zero-emission buses
Fuel cells enhance the performance of electric buses.

- **250-300 miles** Proven range
- Significant reduction in vehicle weight (carry more passengers)
- Rapid refueling speeds (6 to 10 minutes)
- 1:1 replacement of conventional vehicles
Fuel cell electric buses have demonstrated performance in service

- More than 15 years of road-experience
- Over 12M km in service
- >28,000hrs stack durability
- Operation in challenging routes and climates
- 2 OEMs in the US: New Flyer and ElDorado with 40ft and 60ft buses – Altoona tested
There will be more than 1,000 FCEB on the road by 2020.
Hydrogen is a fuel similar to CNG

- Safe and manageable
- Supplied as compressed gas or liquid
- Can also be produced on-site
- Supply at a fixed price over a period of time from multiple suppliers
- Large scale central refueling infrastructure
Hydrogen provides flexibility to transit fleets

- Scalable to support hundreds of buses
- Small footprint
- Renewable sources (wind, solar, biogas)
- Redundancy and backup (enable operators to respond to natural disasters)
Hydrogen fueling stations: flexible solutions for each depot

OCTA Station ~ 60’ x 30’ (up to 40 buses)
Liquid hydrogen delivery

AC Transit – Emeryville (20-30 buses)
On site H2 production (electrolyser)

Transit bus depot (Europe)
Hydrogen storage & dispensing area
Compressed H2 delivery
(55”x45” – 20 buses)
Several companies are now offering turn-key H2 fueling solutions including equipment, fuel supply and service
Committed to sustainable mobility, and clean air for everyone.

http://zeroemissionbus.org

#theotherelectricbus