The Future of Public Transport – In Pursuit of Zero Emissions

H. E. Christian Peeples

www.actransit.org/environment
AC Transit

- Serving 1.5 million people in 13 cities
- 67 million passengers
- 650 buses
- 2,190 employees
- $309 million budget
- 105 lines (27 transbay)

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Getting Started with Hydrogen

• Under Development Since November 1999
• Member of California Fuel Cell Partnership
• Member of Fuel Cell and Hydrogen Energy Assn
• Member of The Climate Registry
1st Generation Bus

- >267,000 Miles
- >700,000 Passengers
- 1.6 to 2.0 Times Better Fuel Economy
- 43% GHG Reductions
  (Reforming Natural Gas; 100% reduction with solar or wind hydrogen)
3rd Generation Design

- 5,000 lbs. Lighter
- Better Batteries
- 130,630 miles (since Aug 2010)
- > 10,000 Fuel Cell Hours
- > 650,000 Miles – UTC Fuel Cell Fleet
- Over 1 million passengers in the Bay Area
- Passengers, Mechanics, and Drivers Love Them

“Like Disneyland in The Real World!”
ACT Solar Power – 1.3 Megawatts

AC Transit solar system will provide renewable power to Emeryville station

$6.4 Million FTA TIGGER I Grant for new 700 kW solar system

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Emeryville Energy Station

- Solar Electrolysis
- Liquid Hydrogen
- Fast Fueling (5-6 kg/minute)
- Buses and Cars
- August Startup

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Seminary Station – 400 kW Fuel Cell TIGGER II

Stationary Fuel Cells
Bus Wash
Compression and Storage
Old Dispensers
Two New Dispensers
Bus Fueling
Maintenance Center
Stationary Fuel Cells

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New Station Objectives

• Steps toward Commercialization

1. Fast Fueling
2. Energy Efficient
3. Green Footprint
4. Scalable
5. Integration with Existing Inline Diesel Fueling

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Contact Information

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