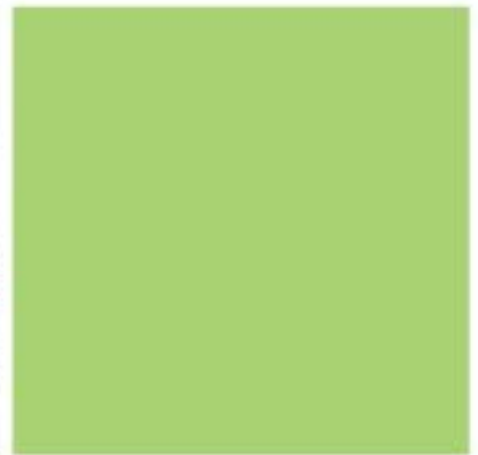


# On the Road in California – Moving Toward an Early Market

Catherine Dunwoody  
Executive Director



# California Fuel Cell Partnership



# Demonstration Phase Wrapping Up



- ▶ 300 passenger cars and buses; 2.8 million miles
- ▶ Building retail stations
- ▶ Preparing communities
- ▶ Codes and standards for retail H<sub>2</sub> sales
- ▶ Leased vehicles & serial production



# One Day...Millions



# CaFCP Action Plan



**46** Stations

Santa Monica, Irvine, Torrance, Newport Beach, San Francisco, Sacramento

**3** Focus Areas

Passenger vehicles  
Transit buses  
Regulations, Codes & Standards

**4** Years

Funding 2009-2012  
Stations begin operation 2009-2014

**\$180** Million

Industry and government investment

# Building Retail Stations

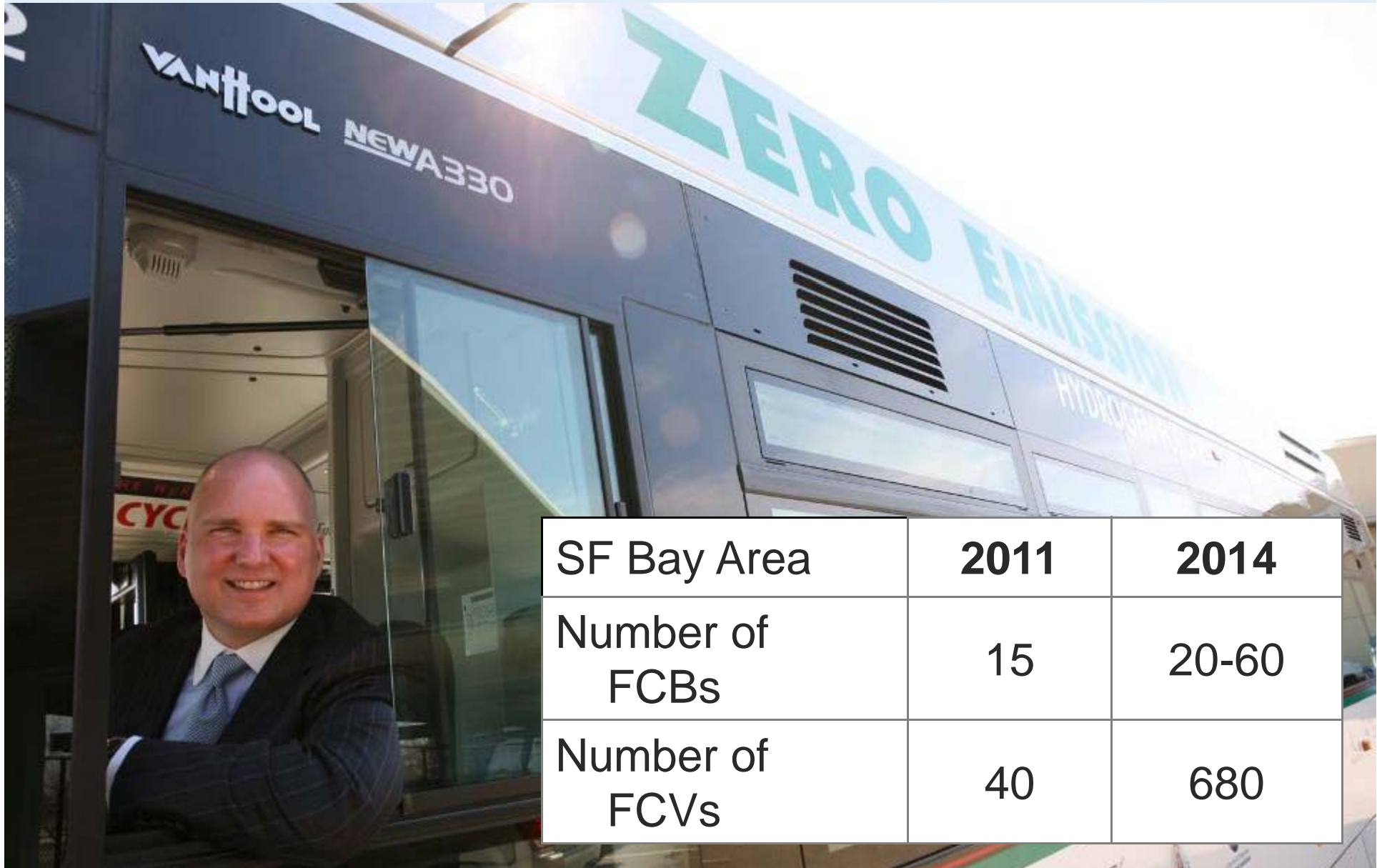


Statewide	2011	2012-14	2015-17
Number of FCVs	710	4,300	49,600





# Transit Strategy

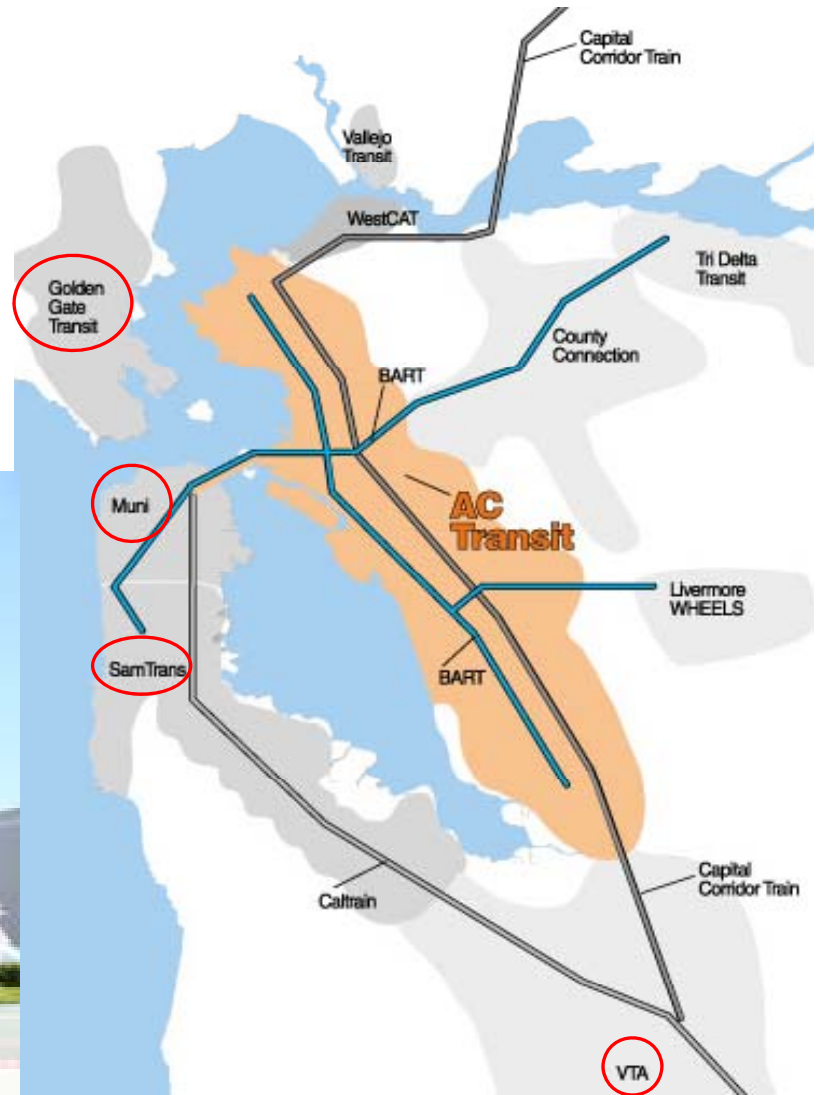


SF Bay Area	2011	2014
Number of FCBs	15	20-60
Number of FCVs	40	680

# San Francisco Bay Area Program



- ▶ \$45 Million
- ▶ 12 New Buses in 2009/2010
- ▶ 5 Transit Agencies



[www.actransit.org/environment](http://www.actransit.org/environment)

# Regulations, Codes & Standards



# Preparing Communities



# Community Acceptance



**THIS PARKING SPACE  
IS RESERVED FOR LOW  
EMISSION AND FUEL  
EFFICIENT VEHICLES  
(e.g. hybrid, hydrogen,  
electrical cars)**



# Community Building



The screenshot shows a Facebook page for the California Fuel Cell Partnership. The page header includes the Facebook logo, a 'Create Your Profile' button, and links for 'Settings' and 'Logout'. The main content area features a cover photo of a building and a post titled 'California Fuel Cell Partnership' with text about weather and water. Below the post are navigation tabs for 'Wall', 'Info', 'Twitter', 'Photos', 'Events', and 'Boxes'. A sidebar on the left contains options like 'Edit Page', 'Promote with an Ad', and 'Send an Update to Fans'. A text box describes CaFCP as a collaboration of industry, government, and academia. The 'Information' section lists the organization as 'Founded: 1999'. An 'Insights' section is also visible.

Overlaid on the Facebook page is a Twitter window. The Twitter window shows the 'twitter' logo and navigation links. A banner for 'New! Lists' is at the top. Below it, a tweet from 'Alicia\_at\_Honda' is visible, mentioning 'RealTime Racing's 2009 SCCA Manufacturers' Championship TSX'. Another tweet from 'cafcop' is also shown, mentioning 'JHFC is visiting us right now! Fuel-cell cars begin demo run'. The Twitter window also displays a search bar and a 'What are you doing?' section with a '140' character limit.

# California Policies



- ▶ **ZEV Regulation**—Requires automakers to produce zero emission and advanced technology vehicles
- ▶ **ZBus Regulation**—Requires transit agencies to operate zero-emission buses
- ▶ **Low Carbon Fuel Standard**—Requires 10% lower carbon intensity of transportation fuels by 2020
- ▶ **Clean Fuels Outlet**—Requires large station owners to supply alternative fuels
- ▶ **AB 118**—State investment plan for funding alternative fuel infrastructure
- ▶ **SB 1505**—Requires 33% renewable hydrogen today

# Enabling the Early Market



# It Takes 40 Years...



Large-scale demonstration projects are underway.



Commercially viable technology is in production.



FCVs are widely available in a selection of vehicle platforms.



Goal: Reduce GHGs by 80% from 1990 levels.

Market introduction

Manufacturing ramp-up

Vehicle population turnover

2010

2020

2030

2040

2050

# California Commitment



# Questions or Comments?

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