

MOVING

toward a commercial market
for hydrogen fuel cell vehicles

Clean Vehicle Expo

October 14, 2008



CaFCP MEMBERS



Promoting fuel cell vehicle commercialization as a means of moving towards a sustainable energy future, increasing energy efficiency and reducing or eliminating air pollution and greenhouse gas emissions.

AUTOMOTIVE

Chrysler
Daimler
General Motors
Ford
Honda
Hyundai
Nissan
Toyota
Volkswagen

ENERGY

Chevron
Shell Hydrogen

TECHNOLOGY

UTC Power
AFCC

GOVERNMENT

CA Energy Commission
CA Air Resources Board
National Automotive Center
South Coast AQMD
US EPA
US DOE
US DOT

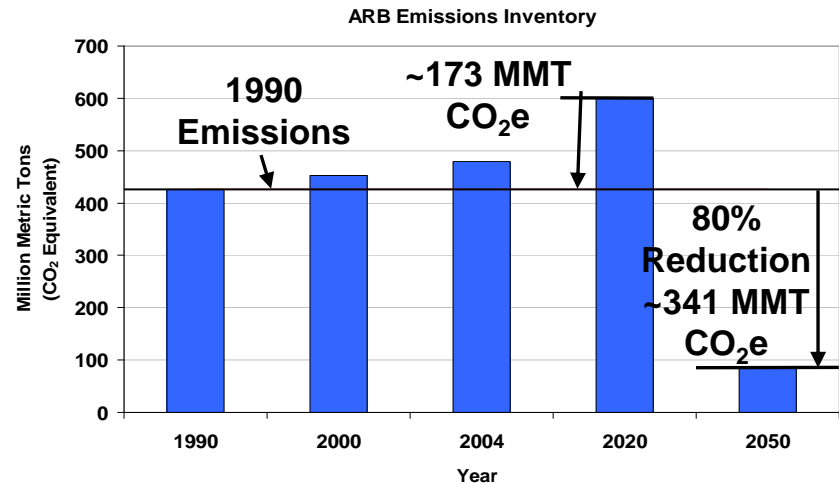
ASSOCIATE

AC Transit
Santa Clara VTA
SunLine Transit
Air Products
Praxair
Proton Energy Systems
Powertech
Ztek
ISE Corporation
ITS – UC Davis
NFCRC – UC Irvine
CA Dept. of Food and Ag

WHY FCVs?



Zero tailpipe pollution



Reduce GHGs

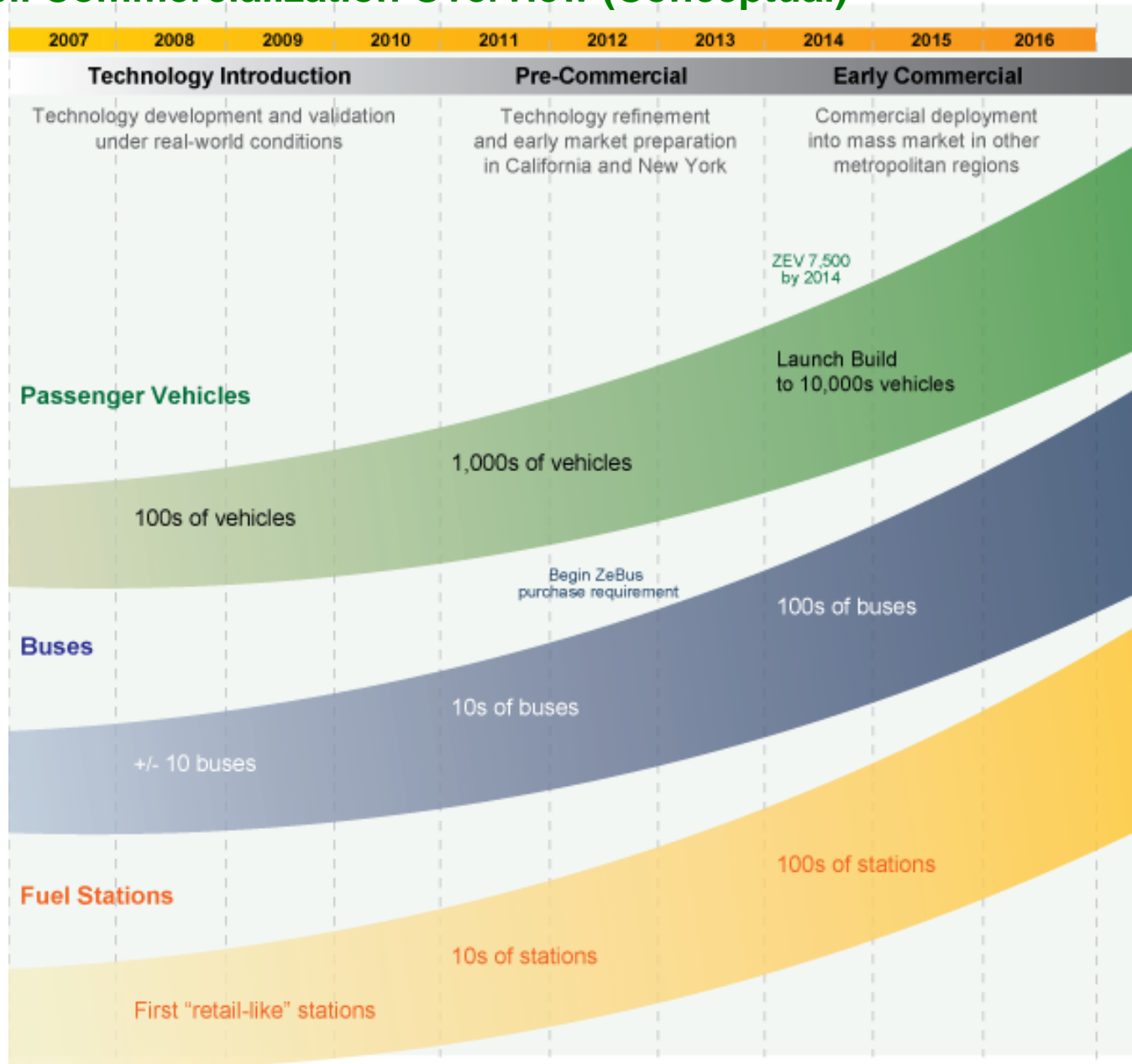


Sustainable, domestic fuel




Vehicles people want to drive

Fuel Cell Commercialization Overview (Conceptual)



TRANSITION

Today – 250 vehicles
+ 25 stations



**How we
get there
from here**

2015-17 – 10,000s
vehicles + 100s stations



EARLY MARKET

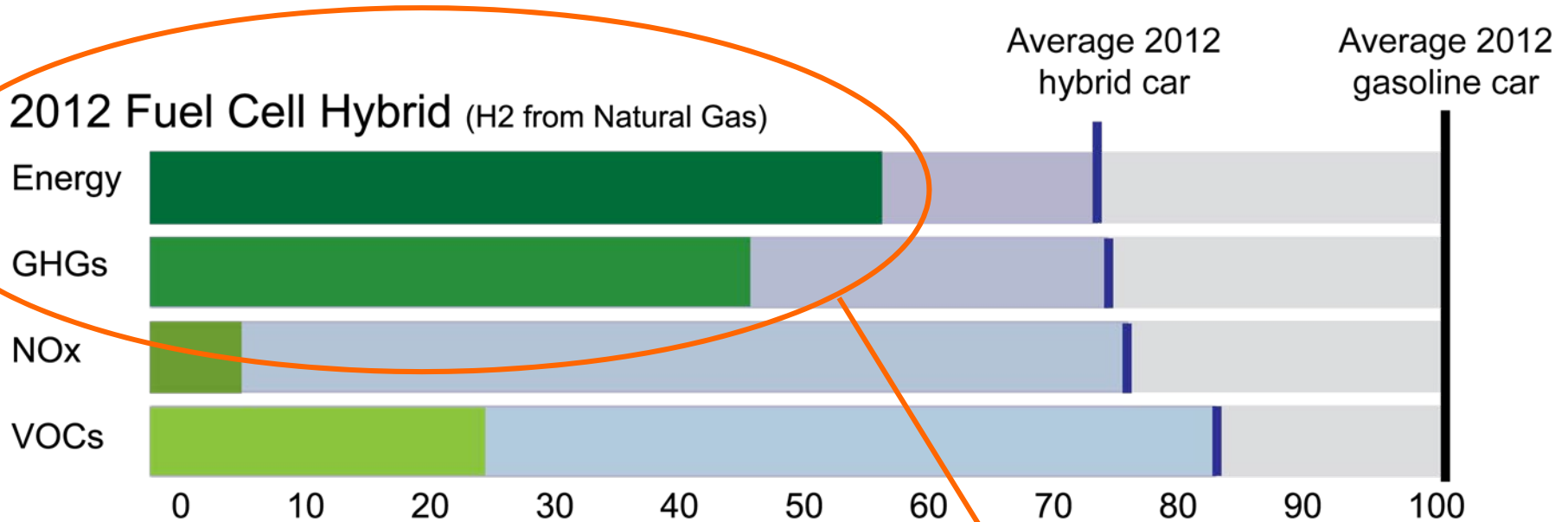
- Focus in target regions (e.g. LA)
- Cluster stations and vehicles
- Customer-friendly, easy to use fueling network!



TODAY'S BENEFIT



“well-to-wheels” of a FCV using H2 from natural gas



45 to 55% improvement compared to conventional vehicles

THE GOAL



ZERO

ZERO GREENHOUSE
GAS EMISSIONS.

ZERO

ZERO TAILPIPE
POLLUTION.

ZERO

ZERO
GASOLINE.