A California Road Map

Bringing FCEVs to the Golden State

September 19, 2012

A fuel cell vehicle is electric!

- 300-400 mile range
- Zero-tailpipe emissions
- Minutes to fill the tank
- Passenger & cargo capacity

Why hydrogen?

Zero tailpipe pollution

Reduce GHGs

Sustainable, domestic fuel

Vehicles people want to drive

Progress to date




- >200 FCVs & FCBs today
- >4 million road miles
- 8 public H_2 stations
- 14 new/upgrade stations in development
- California is on track to have approx. 20 public H_2 stations by end of 2013






We've learned

- Stations must come before vehicles
- People want fuel near home, work and in weekend destinations
- Stations must be customer friendly
- Six minutes is the target maximum travel time
  - For early market clusters

Access to stations

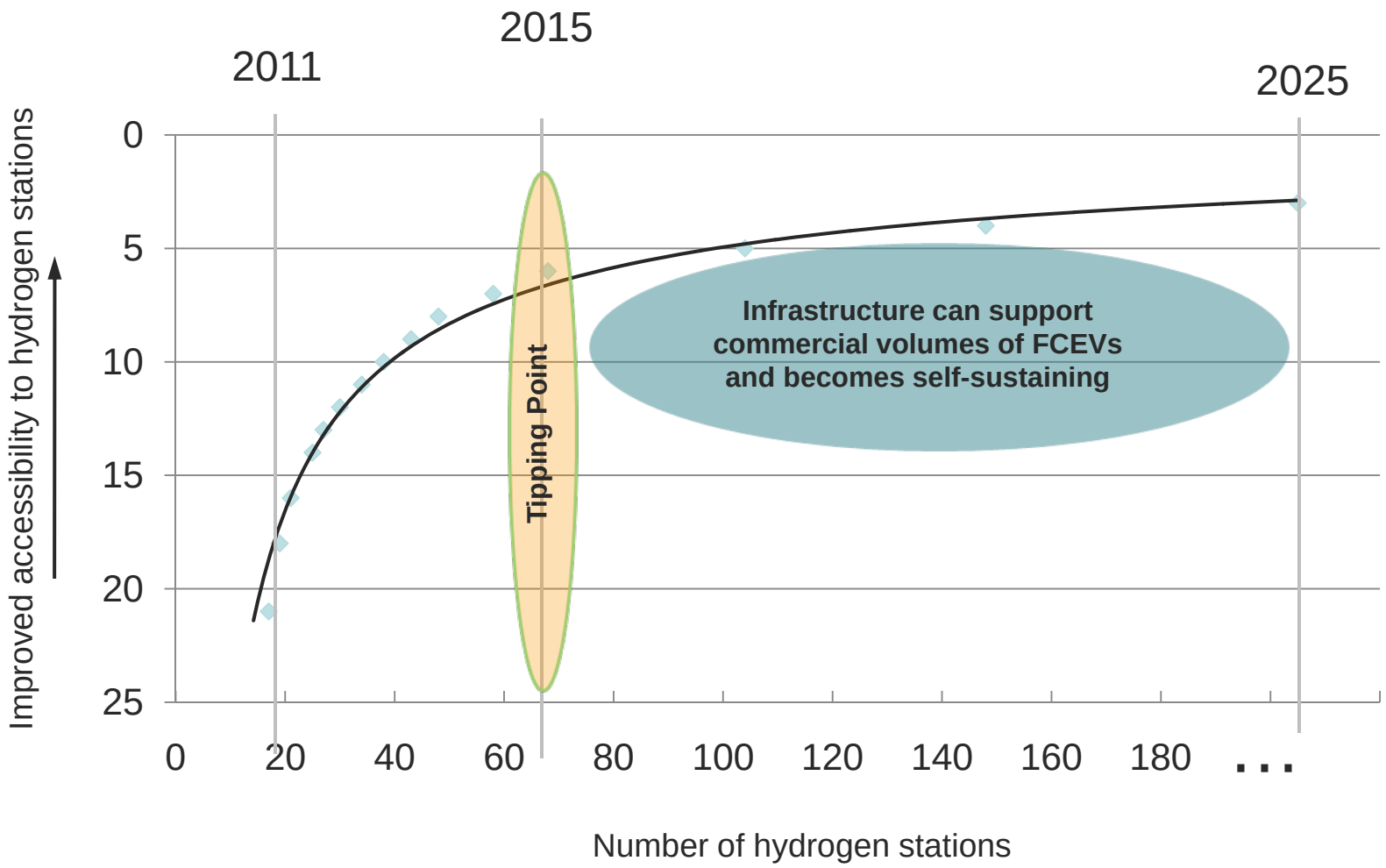


Chart courtesy of National Fuel Cell Research Center at UC Irvine

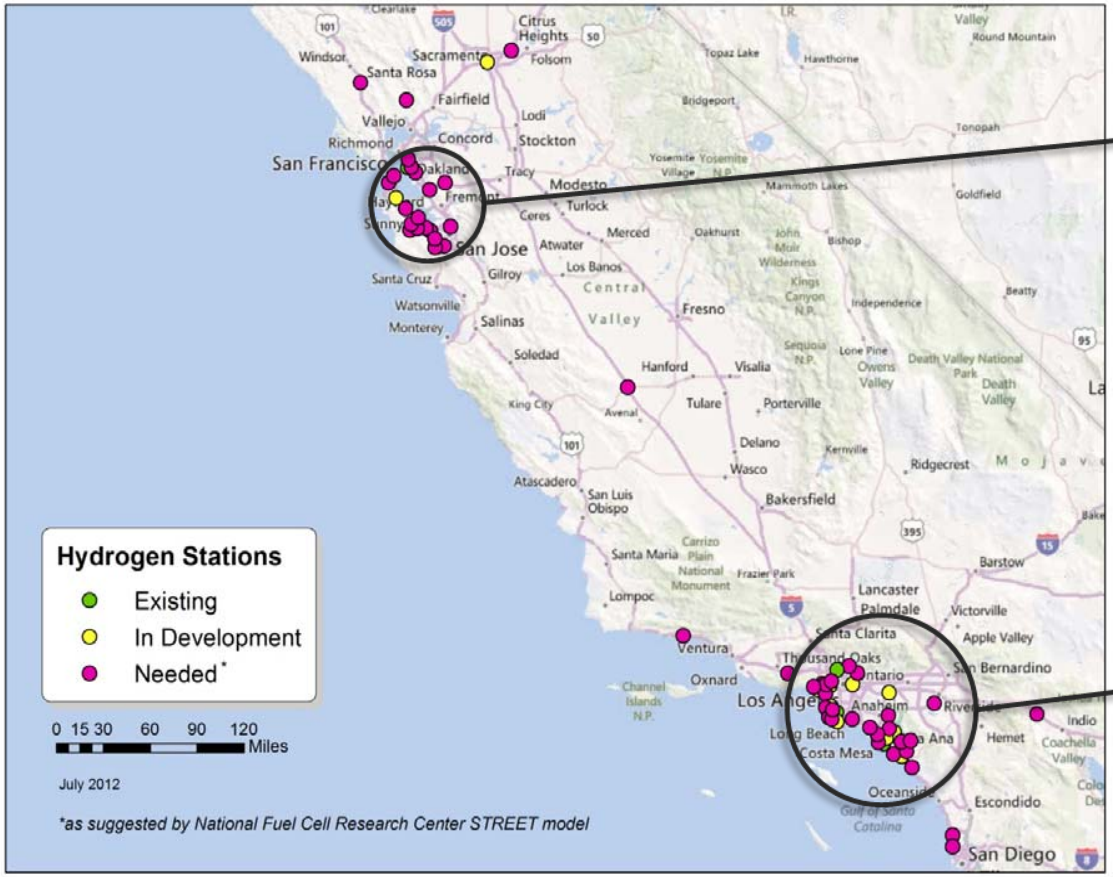
How many stations?

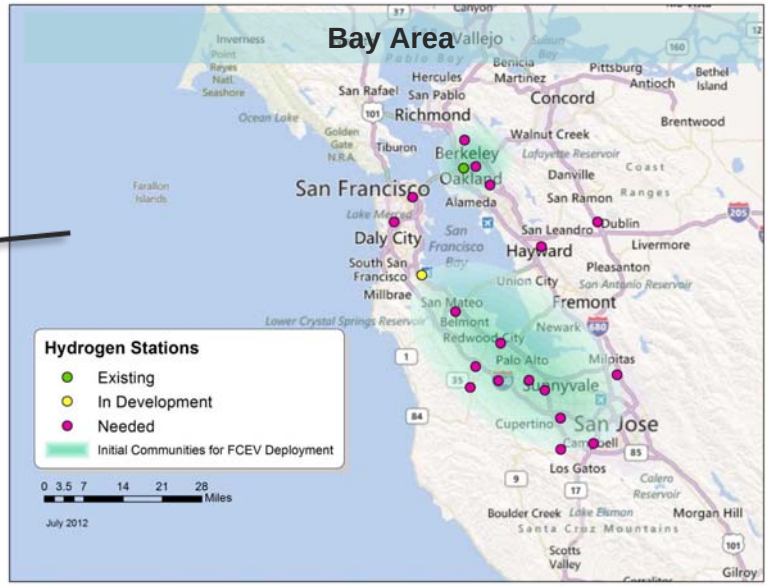
- OEMs identified need for 68 stations by 2016
  - Balances coverage and capacity utilization
  - Supports 20,000 FCEVs
- 45 stations in cluster communities
  - UC Irvine STREET model
- 23 connector and destinations that seed new clusters
  - Based on travel patterns, OEM marketing information

Building a statewide network

California Fuel Cell Partnership — Driving for the Future

Map of 68 Hydrogen Fueling Stations: Existing, In Development and Needed





68 Hydrogen stations provide…

- Coverage
  - Fueling opportunities
- Confidence
  - Automakers build volume
  - Customers purchase FCEVs
- Commercial
  - To launch market and build capacity

Funding goals

- Ensure we can build out the 68 station network
  - 37 stations already in process or expected to be funded
  - 31 more stations needed by January 2016
- Keep all stations operating as vehicle volume grows
- Analysis shows $65M additional incentives needed

AUTOMOTIVE
Chrysler
Daimler
General Motors
Honda
Hyundai
Nissan
Toyota
Volkswagen

TECHNOLOGY
AFCC

GOVERNMENT
CA Energy Commission
CA Air Resources Board
South Coast AQMD
US EPA
US DOE
US DOT

ASSOCIATE
AC Transit
Air Liquide
Air Products
Ballard Power Systems
CDFA
CEERT
EIN
Hydrogenics
ITS – UC Davis
Linde
NFCRC – UC Irvine
NREL
Powertech Labs
Praxair
Sandia National Labs
Santa Clara VTA
SoCal Gas
SunLine Transit
UTC Power

California Fuel Cell Partnership
www.cafcp.org
info@cafcp.org