FCEVs and Hydrogen
A California Road Map

California Energy Commission
DOCKETED
12-HYD-01
TN # 66132
JULY 02 2012

Preparing for market launch

Bill Elrick
June 22, 2012

Progress to date

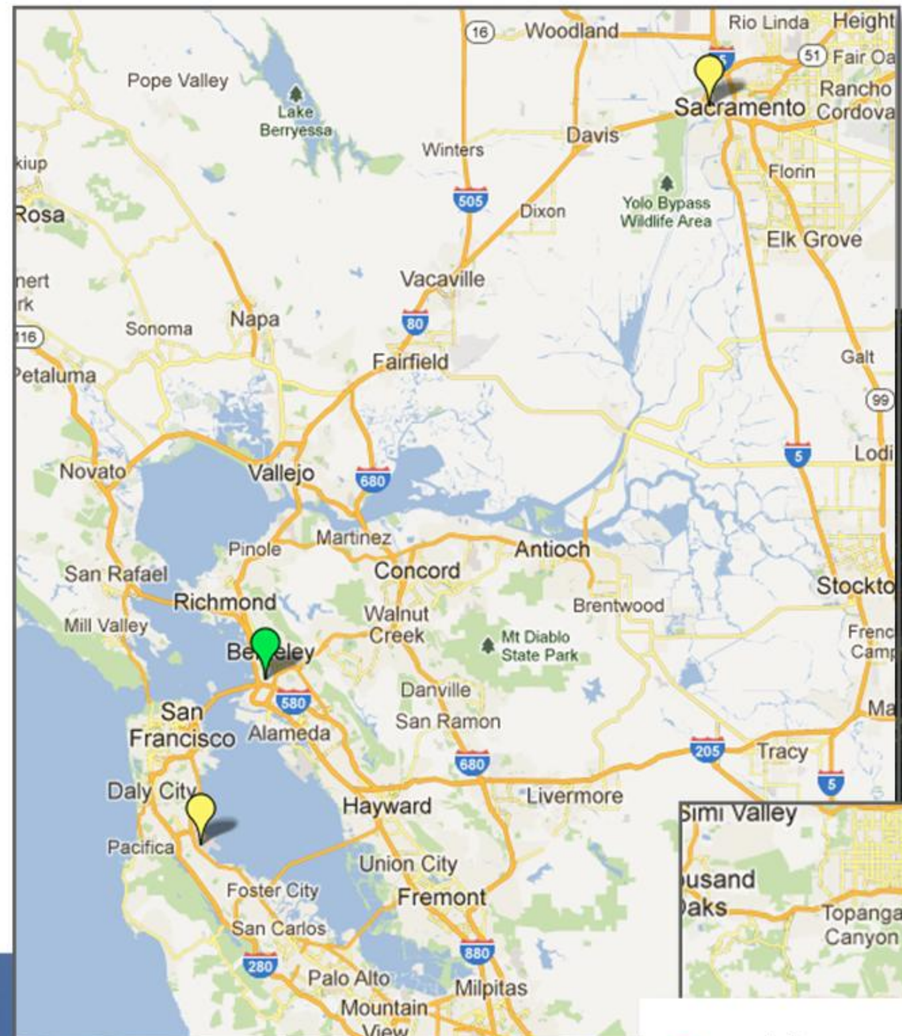
- Over 200 FCEVs & FCBs now
- >4 million road miles
- 8 public H_2 stations
- 14 new or upgrade stations in development
- California is on track to have approximately 20 public hydrogen stations by end of 2013

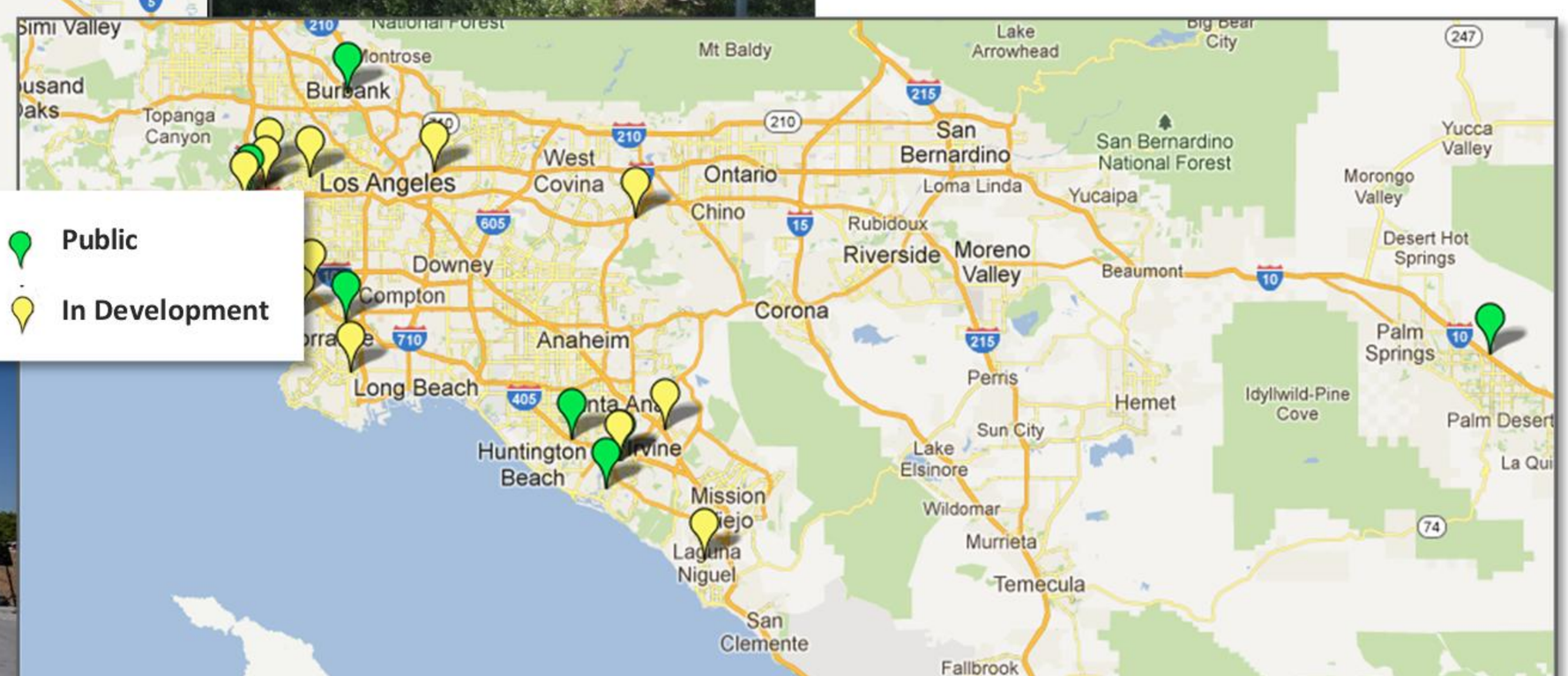
Projected FCEVs in CA

Survey Year	2012	2013	2014	2015 – 2017*
2010-2011	312	430	1,389	53,000

*For competitive reasons, detailed volume assessments have not been provided during 2015-2017.

Developing station clusters





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

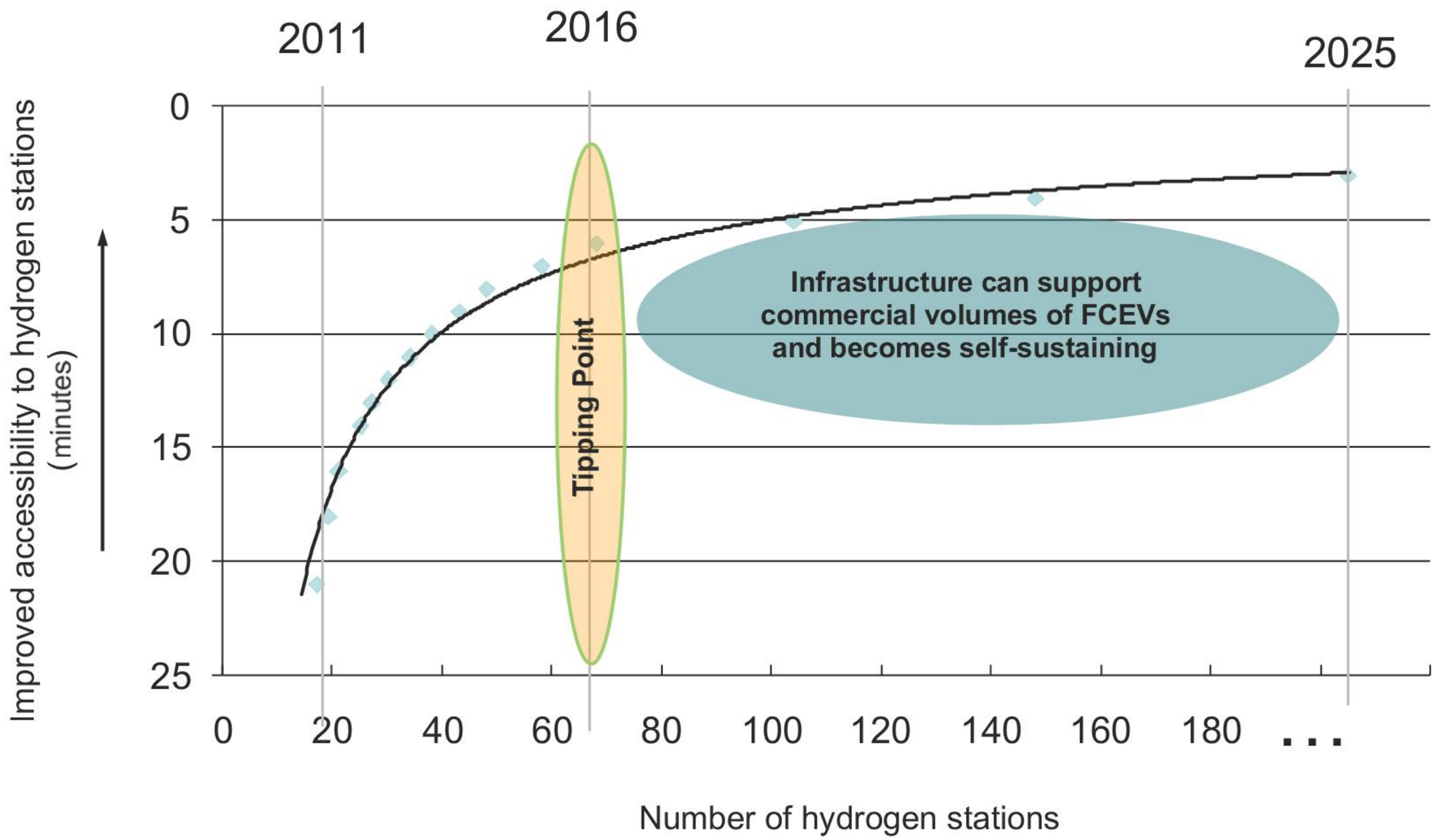
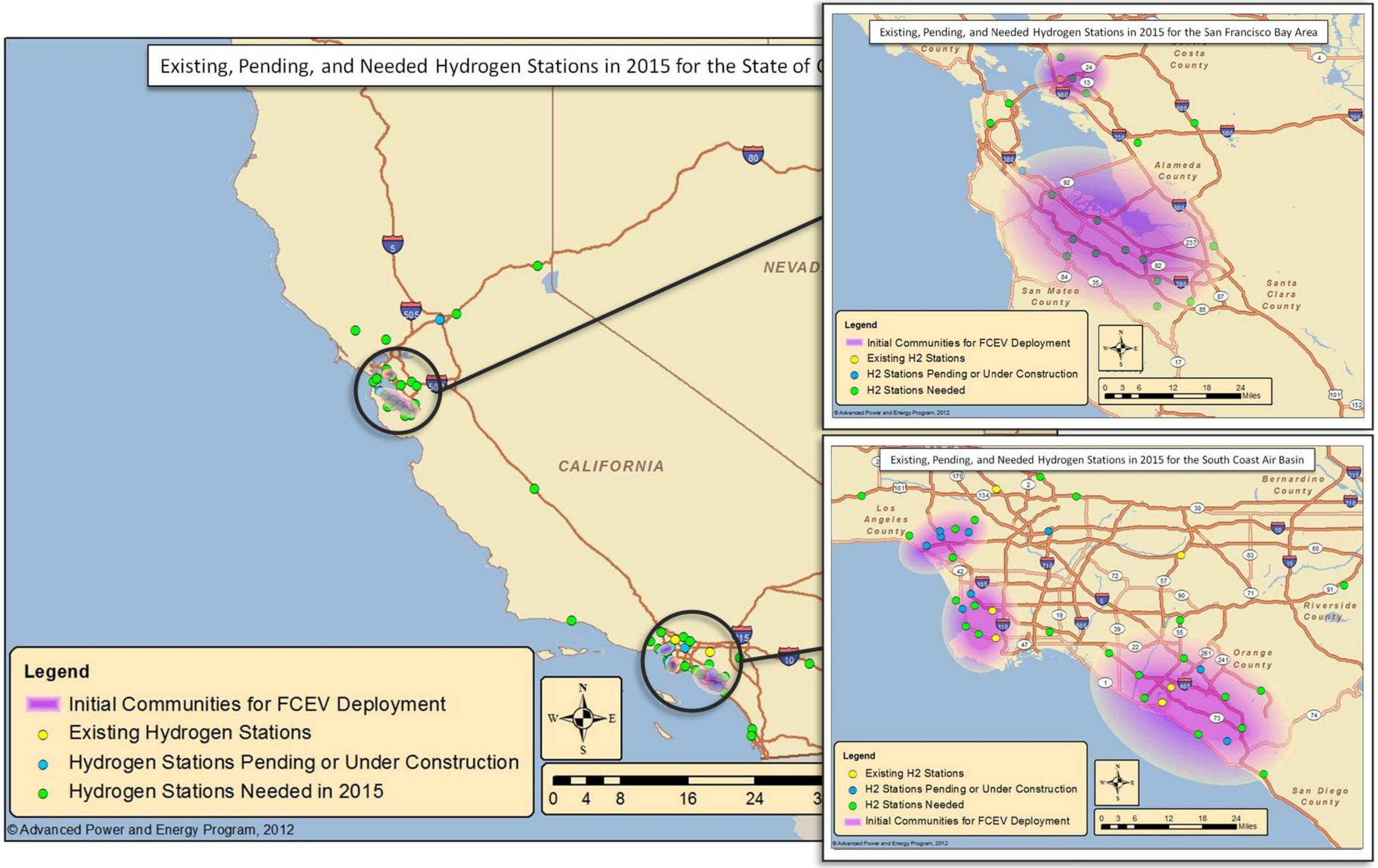


Chart courtesy of National Fuel Cell Research Center at UC Irvine

What is the "right" number?

- Identified need for 68 stations by beginning 2016
  - Cluster markets, destinations and connectors
- 17 stations open or in development
  - Current AB118 funding ($29.7M) to support additional 15-20 stations
- Additional stations needed to reach 68
  - Additional support needed

The initial network



Funding analysis

- Ensure we can build out the 68 station network
- Keep all stations operating as FCEV volume grows
- $65M additional funding needed
  - “Capital buy-down” & “cash flow” models
  - O&M costs for both existing and new stations

The *California Road Map* provides…

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

California Fuel Cell Partnership
www.cafcp.org