

# Status Update for HTAC Infrastructure Report

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HTAC Meeting

# **Current Status**

## **HTAC Infrastructure Report finalized (Fall 2013)**

- Sent to Secretary Moniz November 2013.**
  - Cover letter states key developments and needs for infrastructure**
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- 2013 Report Developed Strong Baseline for Tracking Status of H2 Infrastructure**
  - New committee forms to develop 2<sup>nd</sup> Infrastructure Report.**

# New thinking emerges on H2 infrastructure

- H2 infrastructure planning more sophisticated.
- 1-of-a-kind demos => system thinking/network concepts.
- Realistic Plans w/ stakeholder buy-in.
- More experience building infrastructure

# CA is one example of how thinking on H2 Infra. has evolved

## CA H2 Highway (2004) Locate stations every 20 miles along the interstates.

**Problem:** This did not adequately serve H2 vehicles in cities where most people live.

**Solution:** Focus infrastructure mostly in cities w/ a few stations along the interstates to allow intercity travel.

## CA H2 Blueprint Plan (2006) Build Optimized Urban H2 Infrastructure Based On Existing Gasoline System

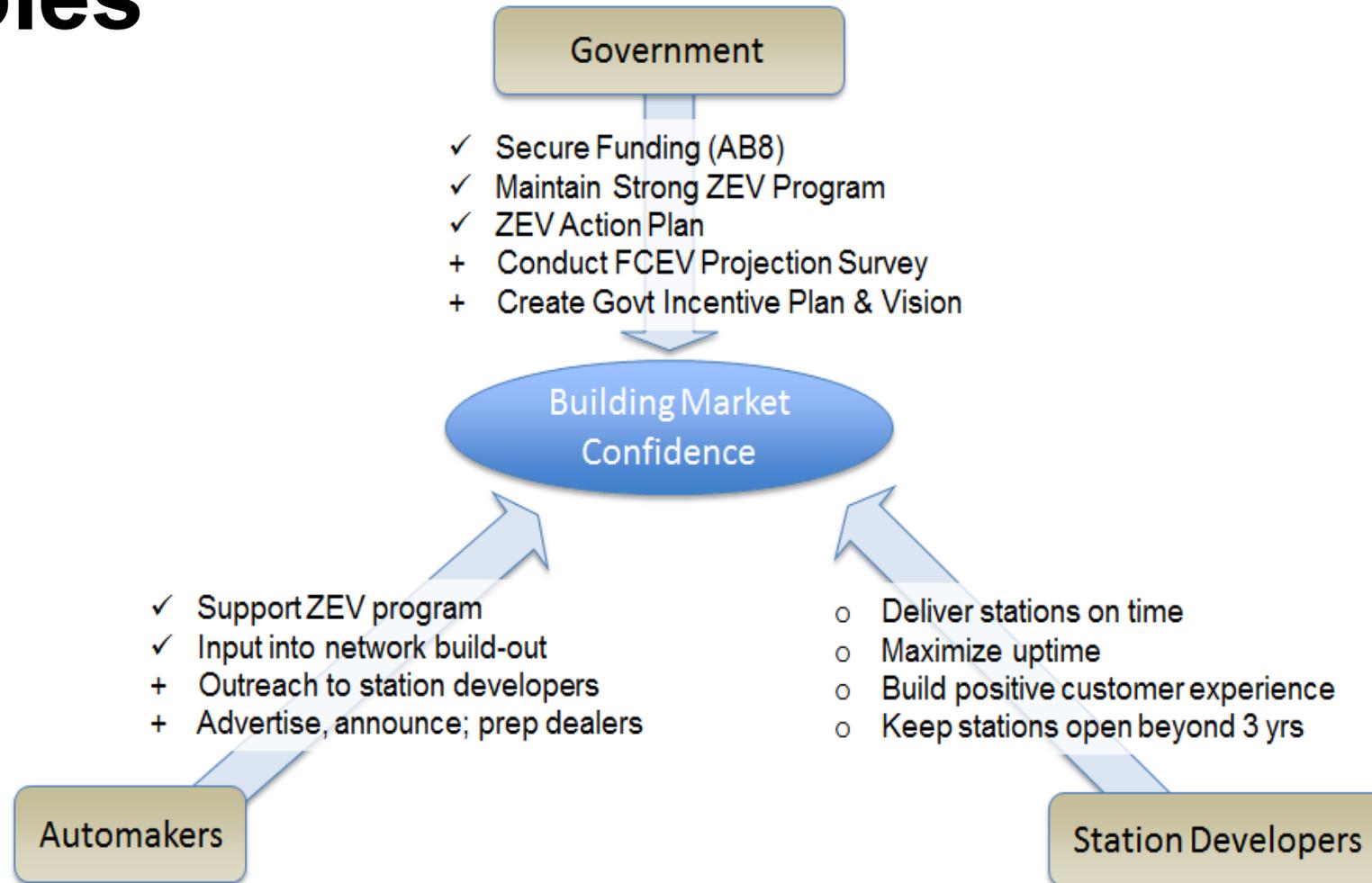
**Problem:** For good access need H2 at 10-30% of gas stations. In LA this is ~400 stations just to get started.

## **Solution: Regional “Cluster” Strategy” (current paradigm)**

FCVs, H2 stations placed together in “clusters” ID’d by stakeholders as early market sites. “Connector” stations added to facilitate regional travel

**How many stations needed? Where should they be located?**

# Early Market Dynamics: Stakeholder Roles



Source: Tyson Eckerle and Remy Garderet, Incentivizing Hydrogen Infrastructure Investment: An analysis of the use of Cash Flow Support To Incentivize Early Stage Hydrogen Station Investment, Energy Independence Now, June 19, 2012. <http://cafcp.org/incentivizing-hydrogen-infrastructure-investment>

# What are Key Issues for next report? Some ideas

- Follow technical advances in infrastructure technologies
- Track progress of worldwide H2 FCV rollout (metrics?)
  - Vehicle deployments
  - Station numbers/technologies
  - Public/private partnerships (Incl. H2USA)
  - Public and private funding
  - International comparisons
- Examine evolving business case for H2 and FCVs
  - When will infrastructure investments “break even”?
  - How do we measure benefits (incl. social benefits NRC 2013?)
- Examine role of policies
- Make recommendations

# Thoughts?

What are the most important issues?

Volunteers for Committee

Timeline for next committee meeting