



Hydrogen Energy California

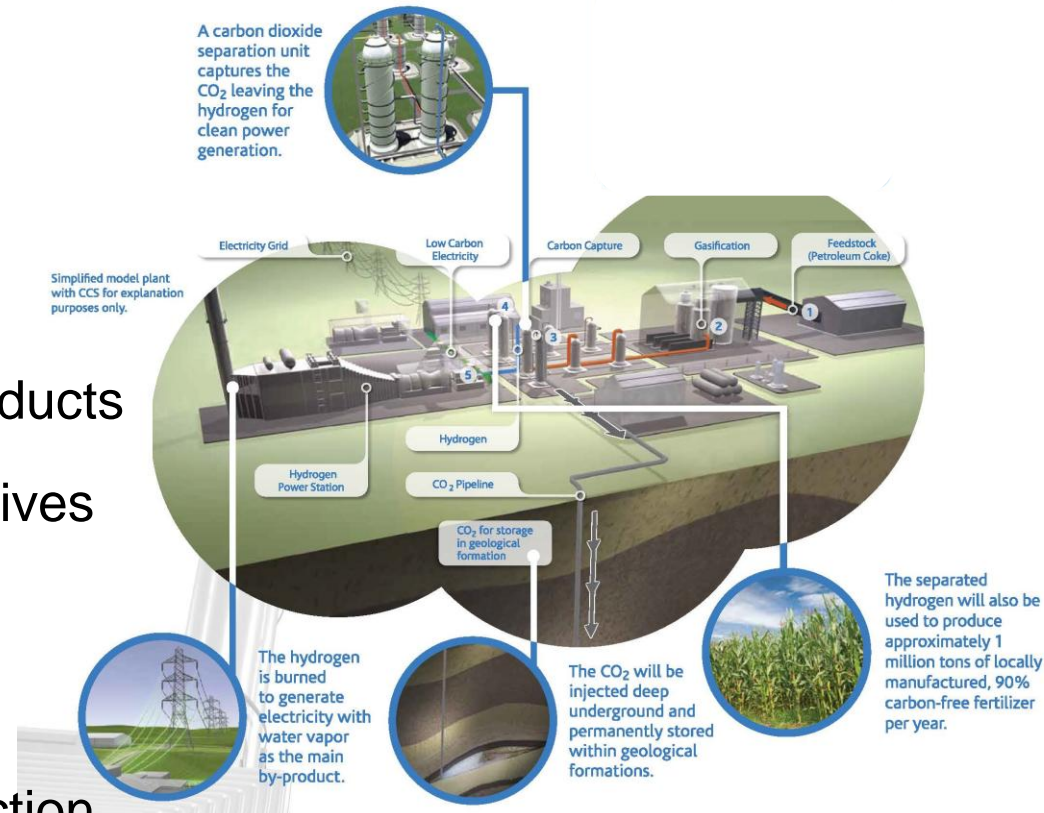
June 2012

A Flagship Project for California



- Hydrogen Energy California will transform yesterday's power plant into tomorrow's polygeneration complex that will provide solutions to the world's future needs for:

- low carbon power
- clean hydrogen gas
- low carbon manufacturing of agricultural and industrial products
- new transportation fuels/additives
- groundwater treatment
- beneficial use of CO₂
- increased domestic oil production

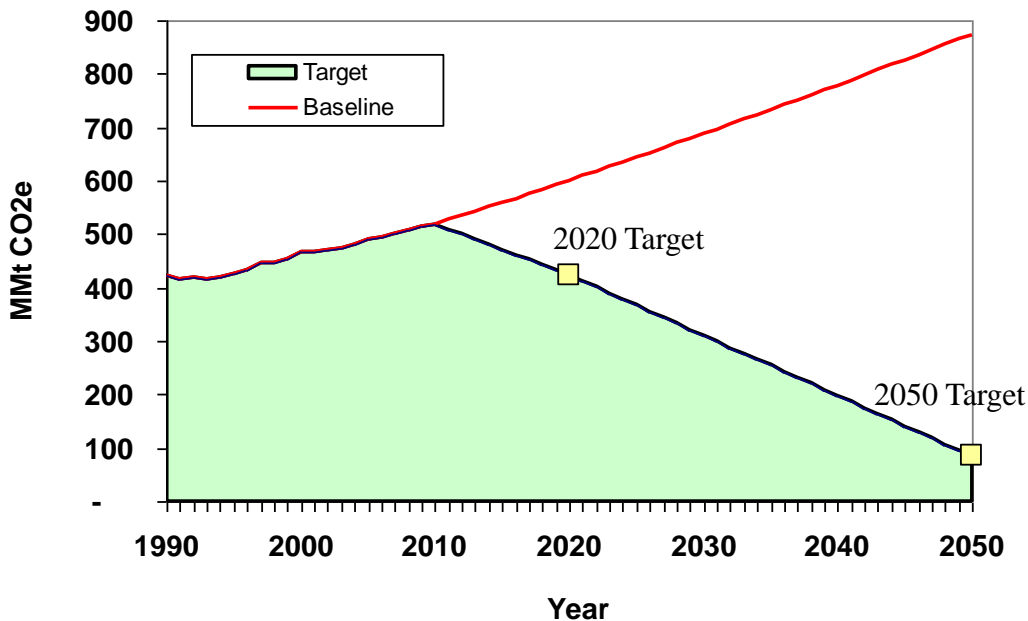


- HECA combines commercially demonstrated technologies into an integrated facility that will convert coal and petroleum coke to hydrogen to **generate electricity, manufacture fertilizer and capture carbon dioxide** to expand the recovery of crude oil that remains in California's oil basins.
- Features
 - A large commercial scale IGCC power plant with polygeneration and Carbon Capture Utilization and Sequestration (CCUS).
 - A 300MW Combined Cycle Power Plant with Flexible Generation
 - A fertilizer manufacturing plant with multiple products
 - A CO2 pipeline and EOR sequestration of 90% of project's CO2
 - Approximately 3 million tons of CO2 will be sequestered through EOR annually

Need for HECA in California



California 2050 GHG Policy Goals



Implications for California:

- By 2050, need to nearly eliminate all emissions from electricity sector
- Need to retire coal plants w/o CCS, and nearly all natural gas plants unless CCS included
- Need to transform all transportation fuels to low to zero carbon
- Need to dramatically reduce or eliminate carbon footprint of all manufacturing and product imports, including fertilizers

Low carbon base-load power and low carbon manufacturing is essential to achieve State's 2050 GHG Policy Goals

Elk Hills is an Ideal location for EOR and Geologic Sequestration

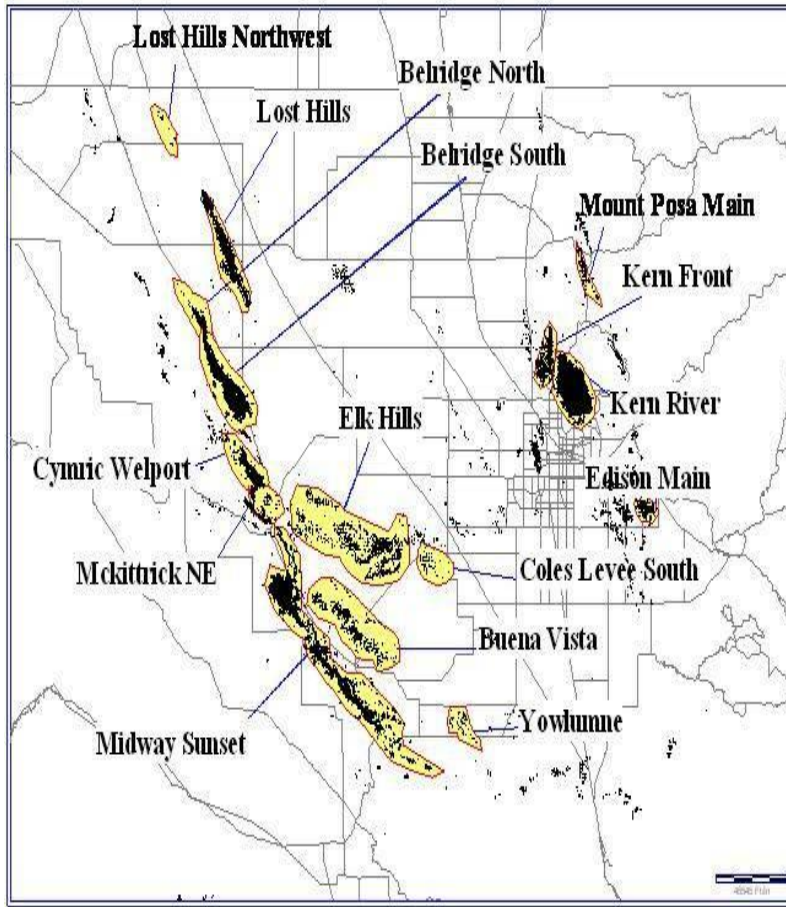


Elk Hills Field is well characterized

- Part of Strategic Petroleum Reserve 1912-1998
- 7 potential storage horizons, each with shale seals

EOR & Sequestration is well understood

- 40 years of industry experience with CO₂ EOR
- Oxy is acknowledged leader in CO₂ EOR operations
- Sequestration demonstration projects ongoing throughout the nation and globally
- CO₂ transportation and injection regulations are well-established



Project Status & Milestones



- Retained \$408mm DOE CCPI-3 grant
- Buena Vista process water supply agreement signed
- Signed term sheet for CO2 sales and enhanced oil recovery in place
- Negotiations underway for long term fertilizer product off-take agreement
- Negotiations restarted with key California Utilities for a long term PPA
- Amended AFC submitted May 2 – CEC workshops & hearings scheduled
- Project Labor Agreement Executed May 28
- Permitting and Engineering: Through 1st Quarter 2013
- Construction & Startup: Spring 2013 to Fall 2017