Los Angeles and California: Leading in Clean Technology

Bill Allen, President & CEO
Los Angeles & California as Leaders in Cleantech Business
October 2, 2012
WHY CALIFORNIA?

• California is the #1 state for attracting foreign direct investment. (International Trade Association)

• We have 931,000 people employed in high tech jobs. (Tech America Annual Report)

• There are 300,000 Californians employed in high paying green jobs. (California EDD)

• There are over 1,500 clean technology companies headquartered in California, including big names such as BioJet Corporation, Bloom Energy and Tesla. (CleanTech Group)

• California is the #1 state for venture capital—CA received 51.03% of the dollars invested in US venture capitals. (Moneytree)

Source: http://www.business.ca.gov/Portals/0/AdditionalResources/Reports/%5BFact%20Sheet%5D%20June%202012.pdf
CALIFORNIA – LEADER IN CLEAN TECH VC INVESTMENTS

• In 2011, California received $14.5 billion in total venture capital investments – up 20% from 2010.

• In 2011, California received $3.5 billion in total venture capital investments in clean tech – up 24% from 2010.

• In 2011, California received 62% of the total global venture capital investment in solar, representing $1.2 billion.

• In 2011, the top three clean tech segments for venture investments in California were: energy generation, energy efficiency and clean transportation.

(Source: NEXT 10 California Green Innovation Index)
CALIFORNIA – LEADER IN CLEAN TECH PATENTS

• California leads the nation in clean tech patent registrations and accounts for 25% of total patents in clean technology registered with the U.S. Patent and Trademark Office.

• California-based solar and battery patents represent 41% (182 patents) and 21% (258 patents), respectively, of all clean tech patents filed nationwide.

• California leads the nation in patents registered in the following clean tech segments: battery technology, water, solar and energy infrastructure.

(Source: NEXT 10 California Green Innovation Index)
CALIFORNIA – LEADER IN RENEWABLE ENERGY

• From 2009 to 2010, energy generation from renewable sources in California increased 11.2% to represent 13.7% of ALL energy generated in the state (versus an average of 4.1% for the rest of the U.S.).

• For every dollar of GDP generated in 2009, California emitted 28 percent less carbon than in 1990.

• In 2011, California passed 1,000 MW of installed solar capacity, an amount high enough to make it a leader among nations.

• From 2009 to 2010, California’s wind generation capacity jumped by 44%.

(Source: NEXT 10 California Green Innovation Index)
CALIFORNIA – MAJOR RECENT ENVIRONMENTAL POLICY DEVELOPMENTS

• In November 2012, California will conduct its inaugural auction of emission allowances under its **Cap-and-Trade** program.

• In April 2011, California’s landmark **Renewables Portfolio Standard** Program was extended and expanded to increase the percentage of power generation from renewable sources to 33% from 20%.

• In 2011, California raised its **net metering** caps from 2.5% to 5%, and expands the program to all eligible forms of renewable energy.

• In 2010, California passes SB 71, a **sales and use tax exclusion** for eligible projects on property utilized for the design, manufacture, production or assembly of advanced transportation technologies or alternative source – including energy efficiency – products, components or systems.
CALIFORNIA – MAJOR RECENT ENVIRONMENTAL POLICY DEVELOPMENTS (CONTINUED)

• In 2009, California establishes its net metering program, requiring that California utilities reimburse customers for excess power generated from solar and wind power systems.

• In 2008, California adopts green building codes (first in the U.S.).

• In 2007, California passes AB 118, an incentive program to fund clean vehicle and equipment projects, research on biofuels production and workforce training.

• In 2006, California Global Warming Solutions Act (AB 32) is passed, requiring that GHG emissions levels be reduced to 1990 levels by 2020.
Los Angeles County
AT-A-GLANCE

Nearly 10 million people

$557.50 billion economy

3,803,800 employees (nonfarm payroll)

$53,335 average annual wage

1,063,100 employees in traded clusters (2010)

1.2 trade employment location quotient (2010)

Compared to the nation as a whole, Los Angeles County has a larger share of its employment in traded industry clusters, suggesting the increased potential for wealth creation through exports.
LOS ANGELES: LEADING INTERNATIONAL TRADE SECTOR

• Los Angeles is the #1 International Trade Center in the U.S.

• Los Angeles Customs District handled $386.7 billion in two-way trade (2011).

• L.A. is home to the nation’s busiest origin and destination airport – the Los Angeles International Airport (LAX).

• The Ports of Los Angeles & Long Beach are the nation’s busiest ports, handling 14 million TEUs in 2011.
LOS ANGELES: LEADING THE WORLD IN SKILLED WORKERS

• World-class research universities: California Institute of Technology (Caltech), University of California- Los Angeles, and University of Southern California, which together received nearly $2 billion in contract and grant award funding.

• 120 accredited institutions that confer associate, bachelor, and graduate degrees.

• World-leading automotive design program, including Pasadena’s Art Center College of Design.

• Well-trained engineering workforce from technical design and production industries, including aerospace, architectural engineering and auto design.

• Nation’s leading manufacturing sector by employment (365,400).
LOS ANGELES COUNTY: THE NEW LEADER IN ELECTRIC VEHICLES
LOS ANGELES: LEADING PRODUCER & CONSUMER MARKET FOR EVs

• World-and-domestic-leading EV-related companies are based here, such as AeroVironment, BYD, CODA, 350 Green, and Quallion.

• Huge demand exists for EVs in the city of Los Angeles alone, where plug-in electric vehicle sales are projected to compose 9% of total car sales by 2015 and 11.7% by 2020 (Luskin Center).

• The County of Los Angeles has a huge consumer market, with more than 5.8 million registered automobiles.

• Strong local and regional government support exists for electric vehicles.

• L.A. County is the car design capital of the world with several design and manufacturing centers of major car manufacturers, including Toyota and Honda.
LOS ANGELES: LEADING IN EV READINESS

• Millions of Department of Energy dollars earmarked in L.A. region for EV infrastructure.

• Over 230 publicly accessible EV charging stations within the county (and many more planned).

• Aggressive policies by utilities to promote EV infrastructure, e.g., LADWP has $2,000 rebate for charger installations.

• Aggressive municipal and educational EV fleet programs to test early release of products.

• State-of-the-art workforce development and training programs for technicians and first responders.
LOS ANGELES COUNTY:  
THE NEW LEADER IN  
CLEAN ENERGY
LOS ANGELES COUNTY: A CLEAN TECH ECOSYSTEM

Over 100 clean tech companies are headquartered here, including big names like SolarReserve, Capstone Turbine and NanoH2O.
LOCAL REGULATIONS & INCENTIVES INFLUENCING THE GREENING OF THE CA ECONOMY

• On-Bill Financing

• Commercial PACE Programs

• Clean Air Action Plan (CAAP) at the San Pedro Bay Ports

• Additional local efforts, e.g., green building programs, electric vehicle charging station rebates, feed-in tariffs, etc.

• City of Los Angeles: Cleantech Corridor, Los Angeles Cleantech Incubator
ANY QUESTIONS?