

Clean Technology Trends



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Greening the North Bay

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Overview of Presentation

- Primer on Clean Technology
- Employment
- Investment
- Business Opportunities



Primer on Clean Technology

What is Clean Technology?

- Knowledge-based products and services
 - Optimize natural resource use
 - Improve efficiency and increase profitability
 - Minimize environmental impact

- High levels of IT, profit and productivity driven, rapid growth markets

Source: Cleantech Venture Network

Characteristics of Clean Tech Sector

- Number of incumbents
- Certain industry segments reliant on friendly public policy
- Nexus of different technologies/sciences
- Great long-term growth opportunities



Principal Categories of Clean Technology

➤ **Energy**

➤ **Transportation**

➤ **Materials**

➤ **Water**

Clean Tech's Categories

Below are the four principal categories of clean technologies, with examples of sub-technologies within each.

<p>ENERGY</p> <ul style="list-style-type: none"> Biofuels Energy efficiency Fuel cells Microturbines Small-scale hydro Solar photovoltaics Wave/tidal power Wind power 	<p>TRANSPORTATION</p> <ul style="list-style-type: none"> Advanced battery storage Alternative-fueled vehicles Electro propulsion Hybrid-electric vehicles Hydrogen refueling stations
<p>MATERIALS</p> <ul style="list-style-type: none"> Biobased materials Blomemetics Green buildings Green chemistry Phytoremediation Recycled materials 	<p>WATER</p> <ul style="list-style-type: none"> Biological water filtration Decentralized filtration systems Small-scale desalination Ultraviolet purification Wetlands restoration

Source: Clean Edge, Inc.

Examples of Clean Tech Industries

- Other electric power generation
 - (NAICS 221119)

- Air purification manufacturing
 - (NAICS 333411)

- Solid waste combustors and incinerators
 - (NAICS 562213)

Source: Economic Competitiveness Group,
Inc. and Global Insight, Inc.

Clean Technology's Significance

“Cleantech is emerging as the enabling technology of modern industrial society: the next and necessary wave of venture innovation.”

-Nicholas Parker

Capital Group LLC



Clean Technology Employment

U.S./California/North Bay Trends

Clean Technology is Big Business

- More than 850,000 jobs in the U.S.
- Renewable energy: more U.S. workers than the coal industry.



Source: Cleantech Venture Network

California Clean Technology Employment

- 180,000 jobs
- Up to 75,000 more California jobs by 2010
- 2,700 jobs created per \$100 million invested



Source: Cleantech Venture Network

North Bay Clean Technology Employment

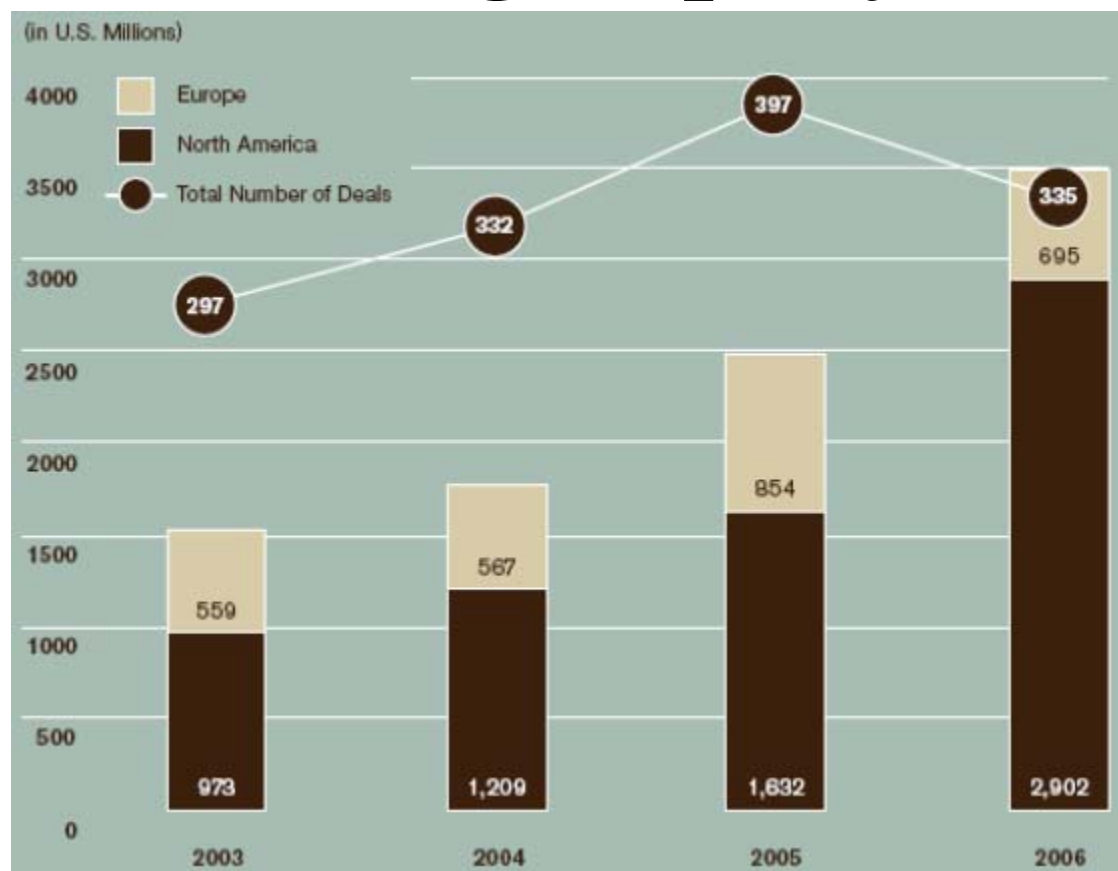
- BLS data suggests around 800 employed
- “Hidden employment”
 - Amalgam Industries
- NBBJ bullish on North Bay clean tech
- Few publicly traded companies



Investment

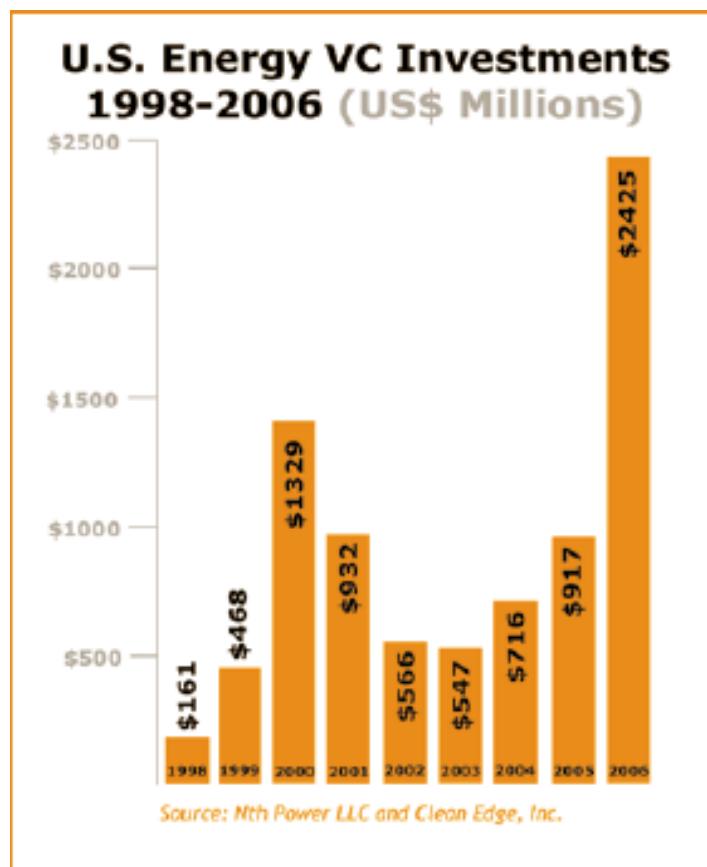
Venture Capital Funding/Publicly
Traded Stocks/Public Sector
Investment/Local Businesses

Clean Tech VC Funding Has Been Growing Rapidly...



Source: SVB Alliant

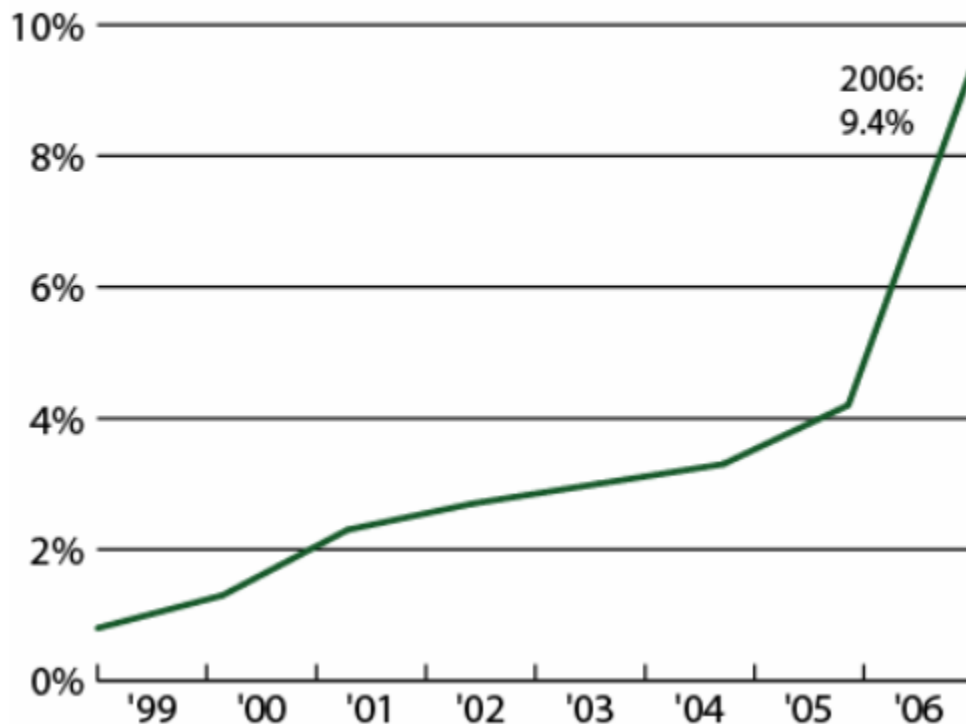
...with the Clean Energy Industry Leading the Charge.



Source: Clean Edge, Inc.

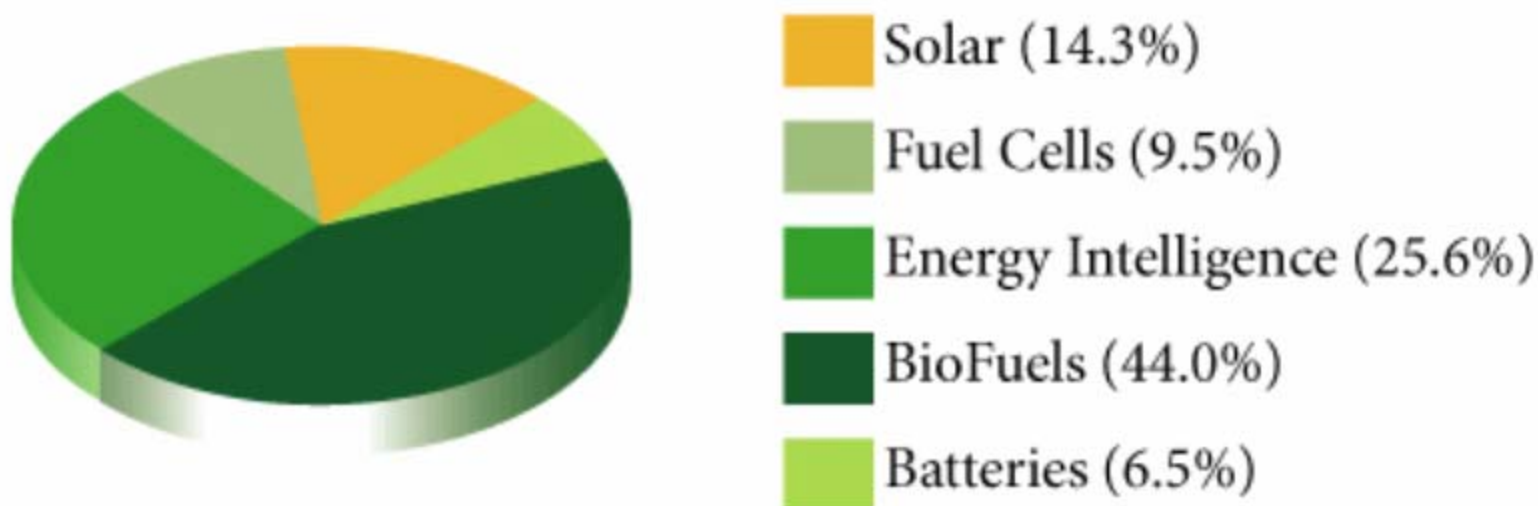
In Fact, the Clean Energy Industry Received 9.4% of All U.S. VC Funding in 2006

Clean Energy Venture Capital Investments in U.S.-Based
Companies As Percent of Total



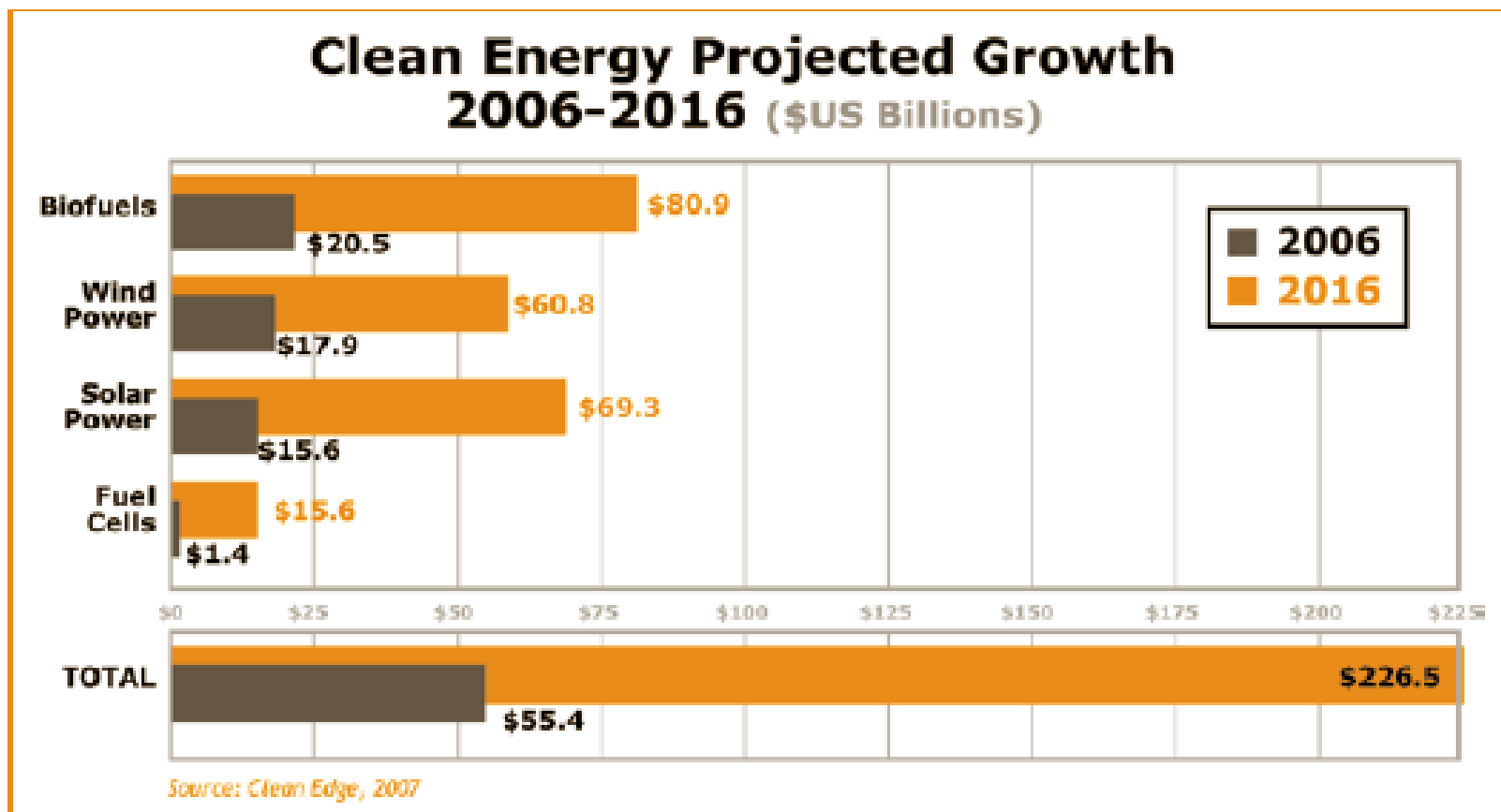
Source: Clean Edge, Inc.

Biofuels Constitute the Greatest Share of Clean Energy Investment...



Source: Clean Edge, Inc.

...Supported by Strong Growth Projections.



Source: Clean Edge, Inc.

The Epicenter of Clean Tech VC Activity is Just a Little Further South on 101...



...In total, the Bay Area Received a Quarter of the 2006 Clean Tech VC Pie.

➤ 2006 California received almost 50% of U.S. V.C. Funding

➤ 2006 Bay Area received almost 25% of U.S. V.C. Funding

USA VENTURE CAPITAL FUNDING (\$2.9 BILLION)



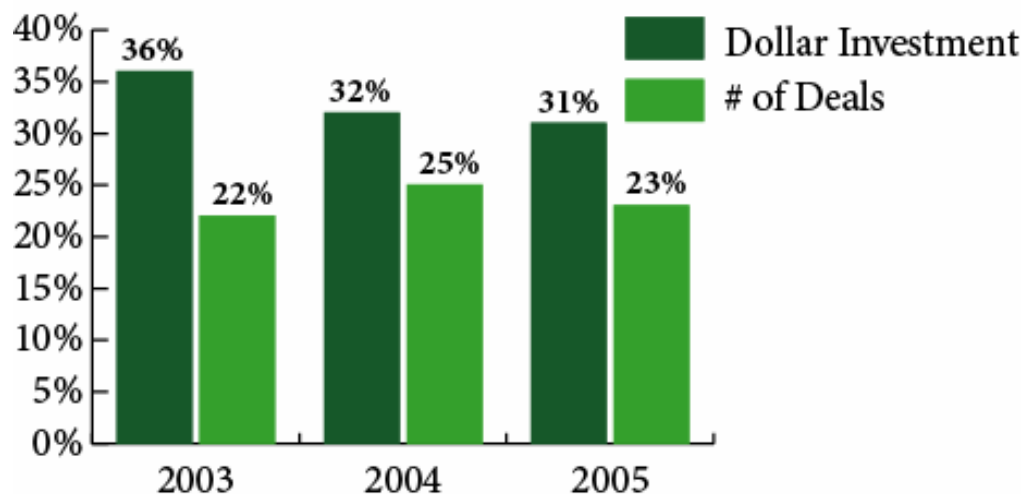
SOURCE: CLEANTECH VENTURE NETWORK, LLC.

But One Question Remains for California

Losing ground?

Hardly

California Share of N.A. Cleantech VC
Investments and Deals

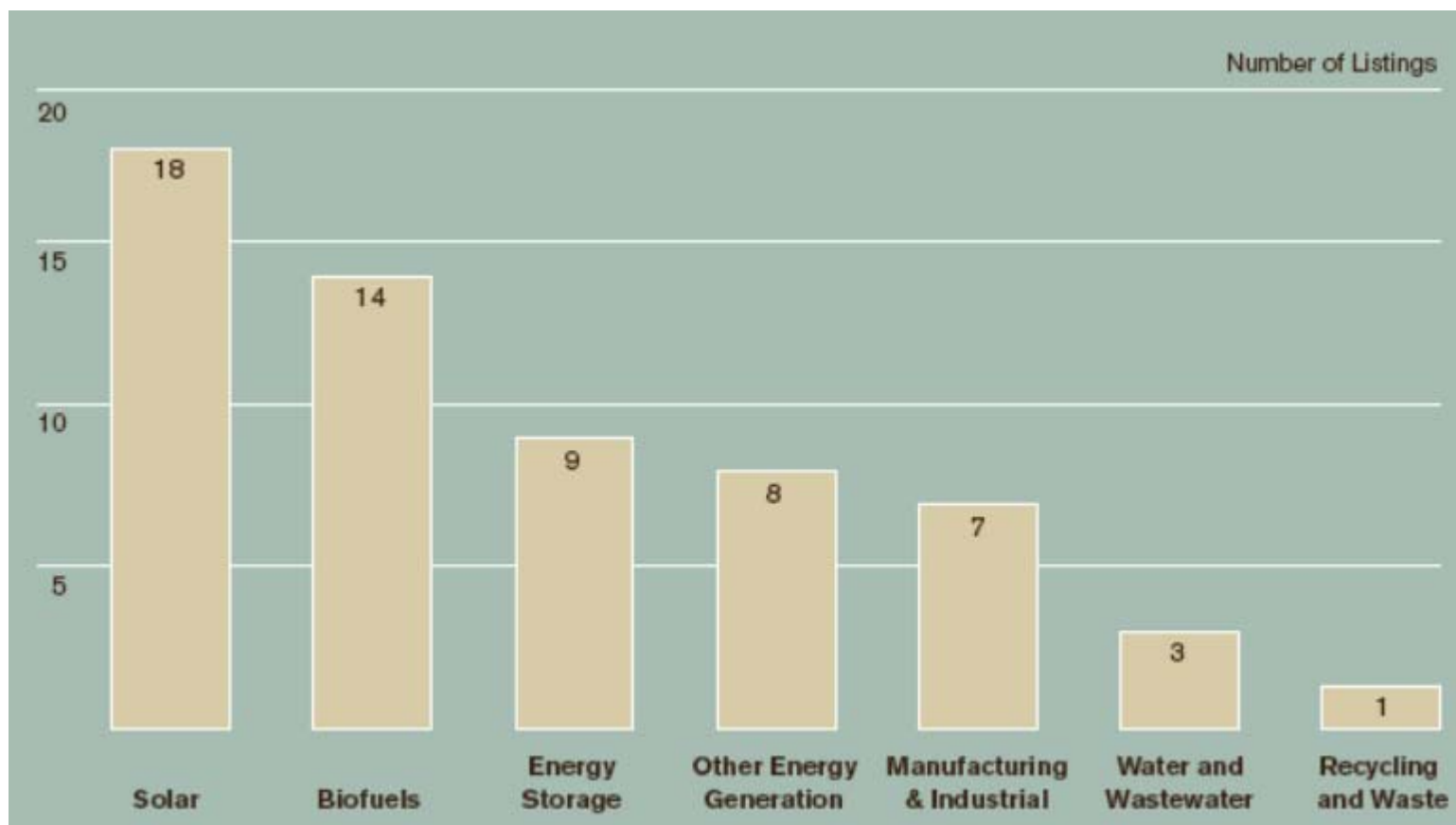


- Percentage share of deals decreasing
- Number of deals and dollars invested still increasing
- North East share growing

Source: Cleantech Venture Network

What about Publicly Traded Companies?

2005-2006: Large Number of IPOs



Source: SVB Alliant

CLEN Index 9-month Performance (Apr. 26)

- 44 companies
- Market cap of at least \$150 million
- More volatility
- Wide spread stock movements



What is the Government's Role?

Public Investment and Regulations can Provide Extra, Often Necessary, Boost

➤ State of the Union

- 35 billion gallons of biofuel by 2017
- 15% of anticipated U.S. gasoline consumption in 2017

➤ AB 32 (Nuñez and Pavley)

- Established greenhouse gas emissions cap for 2020



A Selection of North Bay Clean Technology Company Profiles

ZAP (ZAAP.OB)

- Manufacturer and distributor of electric cars
- Car sales tripled in 2006
- ~\$50 million market capitalization



HydroPoint



- WeatherTRAK® smart irrigation systems
- Feb. 1, 2007 secured \$19 million in venture capital funding
- Founded 2002
- Company HQ in Petaluma

SPG Solar, Inc.



- Named one of *Entrepreneur Magazine's* Hot 100 Fastest Growing Companies in America
- Founded in 2001
- Located in San Rafael, San Diego, Oroville, and Windsor

Marin Solar

- Ten-fold increase in sales from 2004-2006
- Founded in 2001
- Based in San Rafael



EDC Technologies

- Winner of 2006
California Clean Tech
Open
- Water temperature
programming
- Reduces natural gas
consumption



Recent Developments

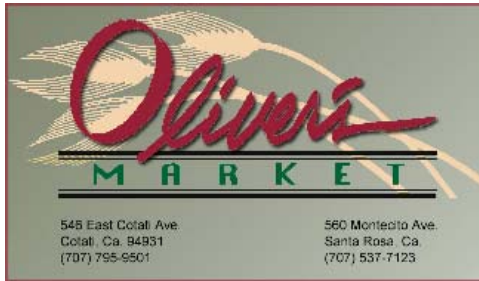
- Nordic Windpower searching for office space in San Rafael
 - Utility-scale turbines
 - Revenues anticipated to reach \$425 million in 2011

- Solarcity and Akeena Solar opening offices in Santa Rosa

Business Opportunities

Successful Applications of Clean
Technology in the North Bay

Business Environmental Alliance 2007 Best Practices Award Winners





Rodney Strong Winery

Conclusion: the Future of Clean Technology in the North Bay

- Long-term advantage in innovation
- Research and development
- Specialty production

Parting Words

“This field of greentech could be the largest economic opportunity of the 21st century. There’s never been a better time than now to start or accelerate a greentech venture.”

-John Doerr

Kleiner Perkins Caufield & Byers

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