

# Going Backwards

Prop 23's threat to California jobs,  
investment, and a clean energy future

# The Clean Economy Network

The Clean Economy Network (CEN) is the largest national membership-based networking, educational, and advocacy organization shaping a new economy based on clean technology and innovation. Our members are professionals, entrepreneurs, investors, and researchers who connect to each other, learn information relevant to business and professional growth, and influence public policies that impact the clean economy.

The Clean Economy Network offer resources such as access to government reports, portals to the latest news in the clean economy, and inside information from leaders at the cutting edge of the clean economy. We currently have 17 chapters operating across the United States and Canada that host networking events and educational opportunities.

For information, contact: [info@cleaneconomynetwork.org](mailto:info@cleaneconomynetwork.org)

**[www.cleaneconomynetwork.org](http://www.cleaneconomynetwork.org)**

By relaxing environmental restrictions and encouraging use of gasoline, Prop 23 will expand the export of California energy dollars to these Texas firms.

## Executive summary

Key technology industry leaders believe the passage of Proposition 23 would have a major impact on California's growing clean technology industry, prompting some companies to reduce investment, close down or relocate. By effectively scuttling the state's groundbreaking rules on greenhouse gas reduction, they foresee California losing market leadership and thousands of jobs to other states and nations, particularly China, which have created strong regulatory incentives for innovation. Economic data support these concerns.

- **Job Growth:** More than 500,000 Californians are already employed in clean tech jobs including more than 93,000 in manufacturing and 68,000 in construction. From 2007 to 2008, the core green economy added jobs at a rate of 5%, while the statewide economy shed 1% of its jobs.
- **Private Investment:** Since the enactment of AB32, private investors have poured about \$9 billion into the development of clean technology in California.
- **Consumer Protection:** If AB32 is scuttled, electricity costs could rise by a third over the next decade, according to a study by UC Berkeley Professor David Roland-Holst.

The two Texas-based companies bankrolling the November 2010 statewide ballot initiative, Valero Energy Corp. and Tesoro Corp., see the expansion of renewable energy in California as a competitive threat. These two companies alone have generated more than \$9 billion in operating income over the last five years from their California oil refining operations, and the state's motorists purchased nearly \$1 billion in retail gasoline from the two companies last year. By relaxing environmental restrictions and eliminating competition from made-in-California energy alternatives, Prop 23 will send more and more money and jobs out of state.

Since the passage of Assembly Bill 32 in 2006, California has experienced a boom in clean technology as companies anticipate the need to find new ways of reducing carbon dioxide emissions and provide clean energy. The certainty provided by the law and the high standards it sets have placed California at the cutting edge of this industry. Utilities and manufacturers are retooling; clean energy companies are sprouting up; and wind, solar and bio-energy companies are developing products they can market in California and to the world. Billions of investor dollars and government incentives are fueling this new clean energy economy.

However, leaders in innovation say that this new growth and the jobs that come with it are dependent upon a stable and predictable policy environment and that investor capital could quickly and easily migrate elsewhere if the myriad policies encompassed by AB32's implementation are overturned.

Prop 23 also threatens California's (and the nation's) ability to compete in the international marketplace. The state has long led the world in clean energy and environmental protection, but commitments by other nations, including the emerging clean tech powerhouse of China, mean there is great risk in moving away from the clean tech economy. If California takes a step backward by passing Proposition 23, investors and entrepreneurs believe it is in danger of losing its position as the global leader in this emerging industry.

Since AB32's passage four years ago, volatile oil price fluctuations, ongoing conflicts with unstable regimes, and recurring disasters such as the catastrophic oil spill fouling the Gulf of Mexico have convinced other states and nations that development of renewable energy sources and clean technology present an enormous economic opportunity. If they uphold AB32, Californians can solidify the state's leadership in clean energy job growth and economic development.

Proposition 23 should be viewed for what it is: a mechanism for regulatory and investment uncertainty that benefits its backers while putting the economic health of the rest of California at risk.

The state now has more than 12,000 clean tech companies funded in part by billions of dollars in investment from venture capitalists and grants from the state and the federal government.

## Innovation in California

### **A Landmark, Bipartisan Law**

The California Global Warming Solutions Act (Assembly Bill 32 or AB32) was passed by a Democratic legislature and signed into law by Republican Governor Arnold Schwarzenegger in 2006. It requires that the state's greenhouse gas emissions be reduced to 1990 levels by the year 2020. Mandatory caps on significant sources of pollution will take effect in 2012 and become increasingly strict to meet the 2020 goals. Under the law, utility companies must increase the amount of energy they provide from renewable sources. The law also tightens vehicle emissions standards and energy efficiency standards for buildings and appliances, among other provisions.

### **AB32 Helps California Lead The Way In Clean Tech**

The enactment of AB32 in 2006 has helped spur rapid growth of the renewable energy industry in California despite the global recession. The state now has more than 12,000 clean tech companies funded in part by billions of dollars in investment from venture capitalists and grants from the state and the federal government.<sup>i</sup> AB32 provides a high degree of certainty, stability, and predictability that has given investors and company executives the confidence to finance new technology and enlarge their operations.

Today, California is on the cutting edge of the growing clean tech industry. Some companies have significantly expanded; others have moved operations to California from other states and other countries; many more have sprung up to take advantage of new opportunities. The law has spurred production of solar and wind power and energy-saving building materials, as well as exploration into such alternatives as algal biofuels, anaerobic digestion waste conversion, improved battery storage, a digital electric grid, and greater building efficiency.

The development of clean technology since the enactment of AB32 is not limited to places like Silicon Valley but is occurring state-wide – from San Diego to Chico and from Oakland to the Inland Empire. The expansion has sparked job growth even as California's overall unemployment rate has risen, according to California's Employment Development Department (EDD). Of the 18.3 million people privately employed in the state, more than 500,000 were employed in clean tech jobs, including 93,000 in manufacturing and 68,000 in construction, according to an April EDD study. And according to a study by Next 10, an independent, nonpartisan organization focused on economic development in California, the clean technology industry has been adding jobs even while the economy as a whole has been shrinking. From 2007 to 2008, the core green economy added jobs at a rate of 5%, while the statewide economy shed 1% of its jobs.<sup>ii</sup>

Many investors and company officials see a parallel with the Silicon Valley's leadership of the high tech industry. As with high tech, California is proving to be a leader in clean tech innovation.

### **Big Utilities Are Already Retooling**

Some of the biggest industries affected by AB32 are retooling and finding sources of renewable energy to meet new standards. The state's giant utilities are now already some of the nation's biggest consumers and investors in wind and solar production.

For some big energy users and suppliers, the vagaries posed about when or whether new climate and energy standards will be adopted creates untenable financial uncertainty, especially since those industries are already investing in technologies of the future to meet state regulatory requirements on renewables.

California's biggest utility, Pacific Gas & Electric, announced this month it wants to see Proposition 23 defeated. Nancy McFadden, senior vice president, says voter approval of Proposition 23 could open the door for those who want to roll back regulatory standards for utilities set by the Public Utilities Commission and the California Air Resources Board. Regulators are requiring renewable sources for 20 percent of utility power production by 2013 and 33 percent by 2020, more than what is required for utilities or other

industry under AB32. Passage of Proposition 23 would embolden those who want to scale back, McFadden predicted. “Some people would go after the renewable portfolio standard that is imposed on utilities,” she said.

PG&E Chairman and CEO Peter Darbee recently spoke out against the economic damage posed by Proposition 23. “Studies show that unchecked climate change could cost California’s economy alone tens of billions of dollars a year in losses to agriculture, tourism and other sectors. Thoughtful and balanced implementation of AB32 is one of the most important opportunities we have to avoid this costly outcome while spurring new clean-tech investment, innovation and job creation in California.”

PG&E has no interest in driving up energy costs to its customers, McFadden said. “We are working on energy efficiency, renewables and shaping regulations at the Air Resources Board so they are workable and so they don’t cause sticker shock to our customers,” she said.

Already, Southern California Edison has become the nation’s largest purchaser of solar power. Utilities are contracting with companies like Solaria, which sells solar modules for large utility installations. For clean tech companies, the law has created demand for renewable energy and the kind of certainty that allows for investment and rapid expansion.

#### FOUR COMPANIES OF THE FUTURE:

## Oak Creek Energy of Escondido

Oak Creek Energy of San Diego County has been in the business of producing wind energy since 1982, when it built one of the state’s first wind farms in rural Kern County. The passage of AB32, which requires utility companies to increase the percentage of clean energy they produce, has helped fuel the Escondido company’s rapid expansion.

In 2006, Oak Creek Energy began development of the Alta Wind Energy Center Project which will produce and sell 1,550 megawatts of clean power to Southern California Edison for delivery to the Los Angeles Basin. The first phase of construction began in April. The project is expected to create 200 construction jobs and 50 permanent jobs in the Tehachapi-

Mojave area, about 100 miles north of Los Angeles.

“Oak Creek Energy has doubled the size of our development and operations team over the past five years – from 18 people in early 2005 to 35 people at present,” said Oak Creek Energy Executive Vice President Ed Duggan. “The right business climate started to come together in 2005 and AB32’s passage was a key piece of legislation that has spurred investment in California renewable energy projects.”

Duggan said the expansion of the Alta Wind Energy Center was made possible by the state’s consistent regulatory structure. The suspension of AB32 would create “an unfriendly business climate in California,” he said, and likely force the company to

shift its efforts and staff to other states.

“If Prop. 23 passed it would create more uncertainty,” Duggan said. “What the market likes is certainty. We would be going backwards and the utilities would feel less inclined to make contracts. It would slow down the progress of renewable energy, if not stop it.

“Long-term stable policy is critical to the continued development of the renewable technology industry,” he said. “If this initiative were to pass, it would very negatively impact Oak Creek Energy and the thriving clean energy industry as a whole. Our momentum would be lost and it would likely take years for our industry to recover.”

“The reason we are here in California is because the policy conditions have created a strong solar market, and we have a bright future,” said David Hochschild, the company’s CEO. His company has greatly expanded operations in California to take advantage of the new demand for photovoltaics, which in turn will help bring down the cost of producing solar energy.

That kind of innovation is occurring largely because there is a market for companies like Solaria’s products that AB32 has helped to nurture.

#### FOUR COMPANIES OF THE FUTURE:

## Serious Materials of Sunnyvale

Serious Materials, headquartered in Silicon Valley, develops and manufactures energy-saving building materials, including super-insulated windows and glass and environmentally friendly drywall. These products dramatically reduce emissions and energy consumption in buildings without requiring changes in consumer behavior.

The company makes Serious Windows using super-insulated glass that can reduce heating and cooling costs and emissions up to 40%. It also makes EcoRock™, a low-cost, high performance alternative to standard drywall, which takes 80% less energy to produce and reduces CO2 emissions by the same percentage.

The company, which employs 375 people, has its headquarters in Sunnyvale and manufacturing plants in Sunnyvale and across San Francisco Bay in Newark.

The company recently began replacing all 6,514 dual pane windows in the Empire State Building and installing Serious Windows. The retrofit, which began four months ago, will use 26,000 panes of glass. When it is complete, it will save the Empire State Building’s owners \$410,000 annually

in energy costs, said Serious Materials CEO Kevin Surace.

Surace sees huge potential for his company’s products. Windows and commercial glass make up a \$24 billion market in the United States. Drywall is potentially a \$6 billion market in the United States and Canada. But Surace sees California’s far-sighted environmental standards as key in creating a market for his company’s energy-efficient products.

“Serious Materials is headquartered in California in large part because of the state’s pioneering clean energy and energy efficiency standards,” Surace said. “We have hundreds of employees and generate millions annually for the California economy. We are planning to add new manufacturing plants, products and hundreds of employees over the next few years.”

Surace called AB32 “a job creation vehicle” because the standards and goals it sets will prompt companies to gear up to meet the demand for clean technology. The next 20 to 30 years of economic growth in California will be built around clean energy, he said.

“AB32 is a very, very important piece of legislation and it puts California in a leadership position in the nation,” he said. “What it says to the companies that come here is that the state is serious about clean technology. It’s one of many reasons why companies want to put their headquarters and build manufacturing plants here.”

The passage of Proposition 23 and the suspension of California’s landmark climate change law would be a “disaster” for clean energy and the state, he said. “It would be totally stupid.”

Proposition 23 is “very un-American,” he said, because it would eliminate jobs and send them overseas.

“Repealing our clean energy laws would mean losing California’s competitive edge in the clean technology sector, and would slow investment and job creation in this state,” he said. “This is just terribly wrong – the oil companies are saying, ‘We know we are on the way down so let’s protect our profits as best we can.’ They are protecting their overblown profits.”

Proposition 23 would undermine California's most rapidly growing economic sector.

## Prop. 23 would gut California's clean technology industry

### **Delaying AB32 Could Be Fatal To The Industry**

Proposition 23 is being sold by political ideologues and the Texas oil companies as a measure to protect jobs in California. In fact, it would do just the opposite and cost the state thousands of jobs in the growing clean tech industry.

If approved by voters, Prop 23 would suspend the implementation of AB32 until California's unemployment drops to 5.5% or below for four consecutive quarters. That has happened only three times in the past 40 years. Today, California's unemployment rate is above 12% – the highest since the Great Depression – and it is likely to be many years before it drops below 5.5% and remains there for a year.

By delaying the implementation of AB32 for years, Proposition 23 would undermine California's most rapidly growing economic sector. If passed, its proponents will aggressively argue in the courts for the broadest possible interpretation of its scope. They have already said in public statements that the state's Renewable Energy Standard, tailpipe standards, and green building codes will be subject to suspension as well. Whether successful or not, the litigation would create massive market uncertainty. Investors and entrepreneurs, who can now rely on the certainty of the clean energy market that was created by AB32, would be forced to cut back operations if the ballot measure took effect. Some entrepreneurs say they could be compelled to close their doors or move to other states or overseas.

“Repealing California's clean energy laws would create market uncertainty and affect billions of dollars worth of investments in solar energy projects that are creating good-paying jobs and sparking new companies throughout the state,” said John Woolard, CEO of BrightSource Energy, an Oakland company that builds and operates solar plants worldwide.

### **Private Investment In Clean Tech Would Decline**

Since the enactment of AB32, private investors have poured about \$9 billion into the development of clean technology in California.<sup>iii</sup> This seed capital has led to the creation of thousands of companies that have produced billions more in economic activity in the state. If Proposition 23 were to pass, California's market in renewable energy would be in danger of collapse.

Jim Watson, CEO of the \$1.2 billion venture capital firm CMEA Ventures, said passage of Proposition 23 would prompt many clean tech investors to look elsewhere for places to put their money.

“We look at what is the most hospitable place to build clean tech companies and to locate companies,” he said. “We can invest as easily in Massachusetts, China or California. We are agnostic. If California has laws that favor clean tech, it's very normal that capital will flow here.”

Watson compares the state of the clean energy industry to the fledgling days of the now giant semiconductor industry.

“Clean energy is in the formative stage,” said Watson, whose company has invested heavily in California's clean tech businesses. “All the emphasis is on innovation and forming new jobs. These are great jobs that will lead to the formation of big companies that will do business all over the world and be headquartered in California.”

“What is going on here is absolutely like 1980 in Silicon Valley and then someone comes in and says, ‘We are going to pull the rug out from under you...’”

– **Josh Green**

general partner of  
Mohr Davidow Ventures

Watson believes California is five years into the creation of two decades of industry growth. Essential to that effort is AB32, which has given the industry certainty by setting tough emission standards and creating demand by requiring the production of more energy from renewable sources.

“It’s critical to have government support to develop those businesses in the early years,” he said. “Really what you are buying is the future here. What you are getting is high-paying, high-education jobs. We want these jobs in this state—engineering, manufacturing, and leadership jobs.”

Proposition 23 represents a threat to every clean tech company in California, he said.

“These are fragile companies that need every incentive they can get. Anything that slows down demand drastically affects the ability to build new industry.”

Prop 23 would have a “cascading effect” on many businesses, said Josh Becker, who runs a \$30-million-dollar fund investing in energy efficiency products. “If you have a solar plant that doesn’t get built, that affects the panel manufacturer, that affects the investors, and that affects the installers. I am very concerned about the impact on the whole industry,” he said.

Josh Green, general partner of Mohr Davidow Ventures in Menlo Park, said other countries recognize the need to move away from a carbon-based economy to renewable energy. The question is whether the United States will be left behind.

“Clean technology and renewable energy standards are fancy words for saying we need to create a competitive industrial economy, competitive with the rest of the world,” said Green, whose firm also invests heavily in clean tech. “The sooner we get off carbon, the better.”

It is time for us to stop regarding renewable energy as a “luxury item,” he said, and recognize that there is “an economic imperative to invest in these areas to promote growth in California.”

Government can do two things to help develop the new clean tech industry, he said, invest public funds or enact laws such as AB32 that set consistent standards and help create demand for the new technology.

Green said he got into the clean tech business in part because it reminded him of the early days of the high tech industry in the Silicon Valley. But passage of Proposition 23 would derail the growth of the clean tech industry in a manner that the high tech industry never faced.

“What is going on here is absolutely like 1980 in Silicon Valley and then someone comes in and says, ‘We are going to pull the rug out from under you,’” he said. “California has always been a leader and a precursor for what is going to happen nationally. Passing Prop. 23 would set back that effort.”

Tom Soto is the managing partner of Craton Equity Partners, a venture capital firm that invests only in clean tech. His firm has helped build seven companies aimed at creating energy efficiency, developing smart grid technology and reducing carbon emissions. Together they have 900 employees. Revenues from his companies were up 41 percent last year, 190 percent this year, he said.

Standards set by AB32 helped foster growth in the industry and create jobs, he said, but Proposition 23’s threat to suspend the law is creating skittishness among investors.

“Now that there is a threat to remove them, there is a lack of confidence in the investor community,” he said.

The reluctance to put up money is especially strong among potential investors who are new to clean tech. The Proposition 23 campaign “gives shudders to other investors,” he said, and may discourage them from getting into the clean tech market.

If Proposition 23 passes, he said, “You’ll give the oil companies a moral victory” that will lead them to continue the battle nationally and in other states.

Sunil Paul, chairman of the Clean Economy Network, runs Spring Ventures, a fund that invests in companies developing fuel cells, solar cells and biofuels. Prop 23 would diminish demand in California and the rest of the United States for renewable energy, he said. Clean tech companies and investors will follow the market. “A US-based clean energy company would much rather sell products into the US than into China,” Paul said, because they would prefer to have production and R&D close to the point of sale. But, he said, if the market is overseas, “you might as well put production there, and R&D there.”

John Doerr, a partner in Kleiner Perkins Caufield & Byers, is an influential investor in high tech and is passionate about the development of clean technology. He said the enactment of AB32 has made California a leader in the emerging clean tech industry.

“Since the passage of that bill, California has pulled far ahead of the rest of the country, on a percentage basis, in the number of new energy innovation and conservation jobs created,” he said.

Now, the Texas oil companies are attempting to reverse that far-reaching measure, which was the result of an agreement between both Democrats and Republicans.

Proposition 23, he said, “is a cynical effort by out-of-state oil companies to try to defer indefinitely the implementation of a market-based system that was advocated by a Republican governor and overwhelmingly passed by a bipartisan group of the California Legislature.”

Passage of the oil companies’ ballot initiative would undermine California’s role as a national leader and could lead to rolling back environmental protection in other states.

#### FOUR COMPANIES OF THE FUTURE:

## OriginOil of Los Angeles

OriginOil, a Los Angeles company, is developing a technique to produce fuel from algae on a large scale. The company says its technology will produce “new oil” from algae to replace the “old oil” of fossil fuels.

OriginOil is developing a cost-effective, high-speed manufacturing process to create what it calls an endless supply of new oil that can be used in place of petroleum products including diesel, gasoline, jet fuel, plastics and solvents. The company says the breakthrough in developing this technology occurred because the envi-

ronmental standards set by AB32 have created the market certainty needed for investment, research and development of such innovation.

Suspending the clean energy law would slow the development of renewable energy alternatives, which are creating jobs and economic growth throughout the state.

“Clean tech is California’s next boom,” said Riggs Eckelberry, president and CEO of OriginOil. “Much like our state benefited from aerospace and then the high tech boom, clean energy and clean

technologies are creating billions in economic growth and resulting in hundreds of thousands of high paying jobs throughout the state.”

He added: “We cannot credibly lead in this area if we don’t have a proactive, friendly set of clean tech policies like AB32. The oil companies’ Dirty Energy Proposition will pull the rug out from companies like OriginOil that have invested millions of dollars into clean, renewable energy alternatives.”

“In order to build out the clean tech industry, you have to have long-term policies in place for a simple and very powerful reason, you have to finance this on a long-term basis”

– **Tim Newell**

senior adviser to the US Renewables Group

“I think it would be a terrible idea if they succeed in putting this off, not only for our own economy, not only for climate, but for the signal it sends to the rest of the country,” Doerr said.

**Financiers Would Balk At Funding Plants**

While venture capital firms invest in companies to develop new technology, private equity firms invest far larger amounts to take proven new technology and build plants and factories. Tim Newell, senior adviser to the US Renewables Group, one of the largest private equity firms focused exclusively on the renewable energy industry, said the certainty provided by AB32 has brought California to the point where companies are on the verge of building major renewable energy plants that will produce thousands of jobs.

Prop 23 would halt that progress and send those jobs elsewhere, he believes.

Private capital will only flow to big projects if investors feel secure. “The incredibly corrosive effect of Proposition 23 is to take away the certainty, the long-term policy predictability that is needed to leverage private capital to begin building our economy again,” Newell said.

“Unless you have long-term policies that are predictable, you can’t build the plant.”

Using technologies developed in California, “the industry will be built somewhere else, like China, like Spain, like Germany,” said Newell. “You can develop technology with relatively few people, but building a single power plant results in thousands of direct and indirect jobs.

One project Newell’s firm is helping to finance is a solar power plant that can generate electricity 24-hours a day. The plant would concentrate the power of the sun to create molten salt, which

would then generate continual energy. The plant, to be built in the California desert by Solar Reserve at a cost of more than \$750 million, would produce 150 megawatts and supply one of the state’s major power companies.

“You are not going to be able to get the debt to build the plant unless you have a long-term contract to sell the power at a set price,” Newell said. “You have to have the contract in hand to build that plant.”

By requiring utility companies to buy increasing amounts of renewable energy, AB32 has created demand for the power that the Solar Reserve plant would produce. “That long-term policy framework is what enables people like us to invest in building renewable energy plants,” he said.

Newell said that Proposition 23, by suspending the implementation of AB32, effectively nullifies the law because it eliminates the certainty needed for the construction of large-scale renewable energy plants.

“We’re asking banks and investment companies and financiers all over the world to invest their capital in California and rebuild our economy in a way that is more productive, efficient and sustainable and at the same time put people back to work. That’s not going to happen unless we have sensible long term policies that will enable those investments to take place.”

While the United States and much of the world have cut back on investment in clean energy during the global recession, China led the way in 2009 with \$34.6 billion in investments.

## Prop 23 would send clean tech jobs and investment overseas

California risks being left behind by countries in Europe and Asia that have comprehensive climate and clean energy policies in place and even by other states who are realizing both the need and opportunity presented by a clean energy economy.

And although the United States remains the leader in venture capital and private equity investments in clean energy, which are essential for technology development, it trailed in asset financing, which is needed to actually build clean energy projects. Taking the nation's total clean energy investments as a percentage of gross domestic product, the United States invests only one-fifth as much as Spain and only one-third of what China and the United Kingdom are investing.

China, for example, led world last year with clean energy investments of \$34.6 billion. That amount dwarfs the \$22.5 billion in public and private money invested in the United States. During the first quarter of this year, 19 clean technology startups went public worldwide and 12 of them were in China, according to the Cleantech Group.<sup>iv</sup>

“China is emerging as the world's clean energy powerhouse,” a Pew Charitable Trust report concluded. “For the first time, China took the top spot for overall clean energy finance and investment in 2009, pushing the United States into second place. Having built a strong manufacturing base and export markets, China is working now to meet domestic demand by installing substantial new clean energy-generating capacity to meet ambitious renewable energy targets.”

China, like California, sees clean energy as central in its drive to power new industry and develop products for markets at home and around the world. The nation has captured 50 percent of global solar panel sales and will deploy more wind energy this year than any other country. For China, there is no Prop 23 because there is no turning back.

California has further reason for concern. To spur innovation throughout its economy, China has embarked on an aggressive program of recruiting top Chinese-born scientists working in the United States and Europe and luring them back to China with promises of high-level positions and plentiful research funds. It also is building vast research parks with state-of-the-art laboratories in numerous scientific fields, notably clean energy. A top funding priority for the Chinese government is nanotechnology, and some scientists hope research into the use of tiny particles already used in solar production could lead to further development of alternative energy sources.

CMEA Ventures CEO Jim Watson said, “There is no question that other countries and governments want these jobs and industries for the same reason we do,” he said. “And they are willing to do anything to get them. China's government is offering tremendous incentives.”

# California consumer costs would rise

Over the past 35 years California's model energy efficiency policies have saved consumers over \$56 billion, creating 1.5 million full-time jobs and \$45 billion in payroll. And since 2006, the Global Warming Solutions Act has been an "incubator of innovation," according to Google CEO Eric Schmidt, leading to "new job creation in many sectors as business responds to the need for energy-efficient buildings, transportation and a growing portfolio of renewable energy resources." The passage of Proposition 23 might help Texas oil companies protect their profits, but costs for consumers would increase.<sup>v</sup>

If AB32 is scuttled, electricity costs could rise by a third over the next decade, according to a study by UC Berkeley Professor David Roland-Holst. He also found that the state could lose a half-million jobs in that time if it remains primarily dependent on fossil fuels.<sup>vi</sup>

Suspending the implementation of AB32 and its expected reduction in air pollution also could be expected to contribute to high health care costs in California. Air pollution drives up the cost of health care, much of it covered by taxpayer-funded public insurance programs, and excessive ozone and particulate pollution sends thousands of people to emergency rooms each year. A 2010 Rand study on the effect of air pollution on hospital spending found that failing to meet federal clean air standards increased public health care costs by \$193 million in California from 2005 to 2007.<sup>vii</sup>

## FOUR COMPANIES OF THE FUTURE:

### N Solar Inc. of Sacramento

Solar power is the largest single element of the clean tech industry. Solar energy companies operate up and down the state and provide thousands of jobs. One of the newest firms to open its doors in California is N Solar Inc., a subsidiary of the South Korean technology firm, Millinet Co., Ltd.

N Solar chose Sacramento as the site for its first North American manufacturing facility earlier this year in part because of California's high environmental regulatory standards. N Solar will begin producing

solar panels later this year with an initial 100 megawatt production capacity. It expects to employ 150 people by 2012.

After a six-month search, the company decided to put its U.S. headquarters and first manufacturing facility in California, where the standards set by AB32 help create a market for solar power and other energy-saving products. If Proposition 23 was to pass and the implementation of AB32 was suspended, companies such as N Solar would likely take their business elsewhere.

"N Solar decided to put our North American headquarters and first solar cell manufacturing plant in California because of California's environmental laws, and the market for our products these laws create," said Sung Joon Kang, Senior Managing Director of N Solar Inc. "Had AB32 not been a factor, we may have brought our business somewhere else in the U.S., and possibly even elsewhere within the North American continent."

Tesoro and Valero refineries based in California have generated more than \$9 billion in income for the two Texas-based firms.

## More California energy dollars leaving the state

Through both refinery profits and retail gasoline sales, Tesoro and Valero currently generate billions of dollars in revenues in California for their corporate parents in San Antonio, Texas. This highlights the bottom line of what is at stake in Prop 23: if the initiative passes, investment in clean energy in California will go down, while exports of California energy dollars out of state (and even out of the country) will go up.

Over the last five years, according to Securities & Exchange Commission filings, Tesoro and Valero refineries based in California have generated more than \$9 billion in income. They also made at least \$1 billion in retail gas sales in California last year under a very conservative estimate.

Tesoro has two refineries in California, Golden Eagle and Los Angeles, which had an \$897 million “gross refining margin” in 2009.<sup>viii</sup> The gross refining margin is an oil industry measure of profitability, representing the price received for the final product minus the cost of raw materials, transportation, and the like. Over the most recent five year period, Tesoro’s California gross refining margins were over \$5.739 billion, SEC filings state.<sup>ix</sup>

Valero’s refineries in Benicia and Wilmington had an operating income of \$252 million in 2009.<sup>x</sup> Over the most recent 5 year period (2005-2009), Valero’s California plants have generated \$3.549 billion in operating income for its parent company in San Antonio, Texas.<sup>xi</sup> “Operating income” is another measure of profitability, representing the earnings left after production costs.

## Conclusion

The stakes in the fight over this November’s Proposition 23 could not be more clear: a wrench in the growing economic engine coming from clean tech investments, the collapse of California’s one economic bright spot in the last few years, a threat to nearly a half-million jobs and 12,000 clean tech companies, and damage to our ability to compete with those who have already seized the future.

The pollution, deception, and economic damage that will come from a group of political ideologues and oil companies who do not want competition is real. That is why the Clean Economy Network, in conjunction with public health, business, policy, and environmental allies have committed to educating Californians about the need to reject Proposition 23.

<sup>i</sup>Karen Chapple and Malo Hutson, “Innovating the Green Economy in California Regions,” Center for Community Innovation at University of California - Berkeley, February 2010, [http://communityinnovation.berkeley.edu/reports/ccci-ucb\\_innovating-green-econ-ca-regions\\_2010.pdf](http://communityinnovation.berkeley.edu/reports/ccci-ucb_innovating-green-econ-ca-regions_2010.pdf) (accessed 7/23/2010).

<sup>ii</sup>California Economic Development Department, “State Survey Identifies Over 300,000 Jobs in California With Major Emphasis on Green Practices,” April 21, 2010, [http://www.edd.ca.gov/About\\_EDD/pdf/nws-rel10-10.pdf](http://www.edd.ca.gov/About_EDD/pdf/nws-rel10-10.pdf) (accessed 7/23/2010).  
Next 10 report: “Energy Prices & California’s Economic Security,” San Francisco, October 2009, [http://www.next10.org/next10/publications/energy\\_prices.html](http://www.next10.org/next10/publications/energy_prices.html) (accessed 7/23/2010).

<sup>iii</sup>An April 5, 2010, article by Cleantech Group LLC titled “Cleantech Thriving in California under AB 32, shows data,” reports that from 2007 through the first quarter of 2010, private firms invested about \$8.4 billion in clean technology, <http://cleantech.com/news/5755/cleantech-thriving-AB32-data> (accessed 7/23/2010). A July 29, 2010, article by FavStocks titled “Biggest Winner Yet Again: California Clean Tech Companies Get Most VC Funding,” reports that private firms invested another \$980 million in clean technology in California in the second quarter of 2010, <http://www.favstocks.com/biggest-winner-yet-again-california-clean-tech-companies-get-most-vc-funding/0920344/> (accessed 7/23/2010).

<sup>iv</sup>Pew Charitable Trusts, “Who’s Winning the Clean Energy Race? Growth, Competition and Opportunity in the World’s Largest Economies,” Washington, DC, 2010, <http://www.favstocks.com/biggest-winner-yet-again-california-clean-tech-companies-get-most-vc-funding/0920344/> (accessed 7/23/2010) and Cleantech Group, “Cleantech Thriving in California under AB 32, shows data.”

<sup>v</sup>Next 10 report, “Energy Prices & California’s Economic Security.”

<sup>vi</sup>David Roland-Holst, Energy Efficiency, Innovation, and Job Creation in California, Center for Energy, Resources, and Economic Sustainability (CERES), University of California, Berkeley, October 2008, [http://are.berkeley.edu/~dwrh/CERES\\_Web/Docs/UCB%20Energy%20Innovation%20and%20Job%20Creation%2010-20-08.pdf](http://are.berkeley.edu/~dwrh/CERES_Web/Docs/UCB%20Energy%20Innovation%20and%20Job%20Creation%2010-20-08.pdf), (accessed 7/23/2010).

<sup>vii</sup>John A. Romley, Andrew Hackbarth and Dana P. Goldman, The Impact of Air Quality on Hospital Spending, Rand Corporation, 2010, [http://www.rand.org/pubs/technical\\_reports/TR777/](http://www.rand.org/pubs/technical_reports/TR777/) (accessed 7/23/2010).

<sup>viii</sup>SEC Form 10-K, Tesoro Corporation, March 1, 2010, p. 31.

<sup>ix</sup>SEC Form 10-K filings, Tesoro Corp., 2005-2009.

<sup>x</sup>SEC Form 10-K, Valero Corp., Feb. 26, 2010, p. 33.

<sup>xi</sup>SEC Form 10-K filings, Valero Energy Corp., 2009-2009.