



Memorandum

TO: RULES AND OPEN GOVERNMENT COMMITTEE **FROM: Mayor Chuck Reed**

SUBJECT: CLEAN TECH SUMMIT RECOMMENDATIONS

DATE: January 23, 2009

Approved

Chuck Reed

Date

1/23/09

RECOMMENDATION

It is recommended that the Rules and Open Government Committee place the attached 2009-2010 Clean Tech legislation agenda on the February 3rd council agenda. This report will serve as the City's legislative priorities in the areas of Clean Tech for 2009-2010.

Once approved by the Council this document will be given to state and federal lobbyists to use as their 2009-2010 focus. My office will also reach out to other Bay Area jurisdictions, non-governmental organizations, and businesses with the intention of making these our priorities and will bring these policy priorities to state and federal governments and work with these municipalities toward uniform local polices and practices.

BACKGROUND

On December 12th, 2008 my office hosted the second annual Clean Tech Summit at San José City Hall. The Summit was broken down into three focus areas consisting of energy, transportation, and finance. The meeting brought together Clean Tech businesses and financial organizations with state and federal elected officials, non-governmental organizations, and regulatory agencies. The Summit focused on energy production and transmission, clean transportation infrastructure and mass transit and both public and private financing of Clean Tech projects and companies. The Summit created a dialogue between business, local, state, and federal government and regulatory agencies allowing for a better understanding of what is needed to create a fertile environment for business to grow and prosper.

Serving on the panel were Assembly Member Anna Caballero, Chair, Committee on Local Government, Committee on Jobs, Economic Development, and the Economy; Carl Guardino, President and CEO Silicon Valley Leadership Group; Karnig Kazarian, Assistant Secretary for Economic Development, California Business, Transportation and Housing Agency; Melissa Jones, Executive Director, California Energy Commission; Commissioner Rachelle Chong, California Public Utilities Commission; Susan Buller, Principal Regulatory Analyst Pacific Gas & Electric and Saul Zambrano, Director Clean Air Transportation Pacific Gas & Electric.

Private sector representatives testifying on the energy panel included Al Yuen PhD, Director of Corporate Development, Sopogy; Tim Keating, Vice President Marketing and Field Operations, Skyline Solar; Josh Richman, Director of Business Development, Bloom Energy; Guy G.

Warner, Chairman and CEO, Pareto Energy LTD. Private sector representatives testifying on the transportation panel included Diarmuid O'Connell, Tesla Motors; *Christopher Perkins, CEO, Unimodal Systems*; Richard Lowenthal, CEO, Coulomb Technologies; Jason Wolf, Global Development, Better Place. Private sector representatives testifying on the transportation panel included Peter Liu, Initial Founder and Vice Chairman, New Resource Bank; Marc Gottschalk, Co-Founder, CleanTech Open; Dave Edwards, Partner, Vantage Point Venture Partners.

The attached guiding principles and legislative agenda is the result of this conference.



2009-2010 SAN JOSE CLEAN TECH LEGISLATIVE AGENDA



2009-2010 Clean Tech Legislative Agenda

San José Green Vision Goals

Within 15 years, the City of San José in tandem with its residents and businesses will:

1. Create 25,000 Clean Tech jobs as the World Center of Clean Tech Innovation
2. Reduce per capita energy use by 50 percent
3. Receive 100 percent of our electrical power from clean renewable sources
4. Build or retrofit 50 million square feet of green buildings
5. Divert 100 percent of the waste from our landfill and convert waste to energy
6. Recycle or beneficially reuse 100 percent of our wastewater (100 million gallons per day)
7. Adopt a General Plan with measurable standards for sustainable development
8. Ensure that 100 percent of public fleet vehicles run on alternative fuels
9. Plant 100,000 new trees and replace 100 percent of our streetlights with smart, zero-emission lighting
10. Create 100 miles of interconnected trails



January 23, 2009

Dear Friends and Colleagues,

As the Capital of Silicon Valley, San José is committed to fostering the innovation that will transform our economy and our environment. To that end, my office recently hosted the second annual Clean Tech Summit at San José City Hall. The Summit focused on three areas critical to the success of the industry: energy, transportation, and finance.

Bringing together representatives from Clean Tech businesses, financial institutions, elected officials, non-governmental organizations, and regulatory agencies, we discussed the current status of the Clean Tech industry and its future potential. From energy production and transmission, to clean transportation infrastructure and mass transit; to both public and private financing of Clean Tech projects and companies, we delved into critical issues impacting our ability to grow Clean Tech jobs.

It is important that we maintain an open dialogue between businesses, regulatory agencies, and the local, state, and federal government. We must work to fully understand how we can create a supportive environment for the business sector to continue to expand and innovate.

The attached guiding principles and legislative agenda were formed following discussions at the Clean Tech Summit. I hope that this information will be helpful in focusing your priorities and efforts in the support of Clean Tech innovation and job creation.

Sincerely,



Chuck Reed
Mayor

2009-2010 Clean Tech Legislative Agenda

Guiding Principles

Invest in innovation and Clean Tech manufacturing to catalyze job creation

Support policies that reward innovation and public investment in research and development. Encourage demonstration projects and early public procurement of Clean Tech products. Allow companies to grow by reducing initial production costs and helping them to re-invest in development by deferring taxation and fees to the point of production or profit.

Remove barriers to consumer adoption

Upfront costs and regulatory obstacles deter many consumers from adopting Clean Tech products and energy efficient practices. Government should support policies that encourage consumer demand by making Clean Tech products cost competitive with non-renewable technologies. Reduce regulatory impediments while streamlining the installation process. Explore and support creative financing arrangements.

Spur national demand for Clean Tech products

Support policies that increase demand for clean energy, zero-emission vehicles, alternative fuels and green building technologies such as renewable portfolio standards, government procurement, greenhouse gas emission reduction targets, green building policies and codes, energy efficiency standards, and fuel efficiency and emission standards. Provide additional incentives and preferences for American-made innovation.

Take the long-term view and increase market stability

Advocate for permanent incentives that will spur continuous demand and promote continuous growth in the market. Eliminate uncertainty and market instability created by short-term sunset provisions that prevent long-term planning and investment. Adopt policies that will permanently transform the energy market, making government intervention ultimately unnecessary.

Encourage development of all technologies by promoting technology neutrality

Encourage development of a diverse range of clean, renewable energy technologies, energy efficiency products, zero-emission vehicles and alternative fuel vehicles with common incentives, allowing the market, not government, to determine winners and losers.

Prepare the green collar workforce of the future

Encourage dedication of workforce resources to train workers for careers in the production, assembly, installation, maintenance, and monitoring of Clean Tech products. Training programs should include secondary schools, vocational schools, community colleges, and workforce programs, and provide opportunities for a diverse and well trained renewable energy workforce.

Level the playing field

Advocate for full-costing of carbon-based energy resources and products. Implement market-based compliance mechanisms and adequate price signals that capture externalities and social costs of energy consumption. Eliminate subsidies and incentives for non-renewable energy sources and use this new funding source to pay for investments in renewable energy and efficiency.



2009-2010 FEDERAL Clean Tech Legislative Priorities

Support American Innovation and Manufacturing

Provide incentives for domestic manufacturing

The transition to a green economy offers economic opportunities in the manufacture and application of Clean Tech products. Early federal incentives can help ensure that American innovation leads to American production of these technologies. These include accelerated depreciation and refundable tax credits for a portion of the cost of capital equipment used to produce and assemble materials and components of Clean Tech products. To mitigate the impact of reduced access to capital, the federal government can assist companies with the acquisition of capital equipment needed for production by expanding the current value equipment limitations placed upon Industrial Development Bonds or creating a program similar to California's Alternative Energy & Advanced Transportation Financing Authority sales/lease back program.

Promote consumer purchasing of domestic-made products

Currently, no additional incentive preferences exist to encourage consumers to choose an American-made Clean Tech product rather than a foreign-made product. Preferences in federal procurement, such as requiring a percentage of domestic content and providing additional tax credits for American energy, green building, and clean transportation products should be explored as a way to encourage domestic production without violating current trade arrangements.

Accelerate investment in Clean Tech research, development, and commercialization

Solar America, Advanced Transportation, and other Clean Technology grant and loan programs provide critical funding for growing Clean Tech companies. Just as previous waves of federal investment spurred creation of the semiconductor industry and investments in the Internet spurred the dotcom boom, large public investment in Clean Tech research and development will ensure that America continues to lead the Clean Tech movement. In addition to existing programs, more funding should be dedicated to help mass-transit solutions that utilize Clean Tech/renewable energy, help reduce U.S. dependence on fossil fuels and increase our nation's energy security, and make transit oriented development more viable. Further, federal funding for Clean Tech and life science incubators, such as San Jose's Environmental Business Cluster and BioCenter, will ensure quality services and space that are critical to commercialize ideas and create viable companies.

Ensure access to credit for emerging Clean Tech companies

Government grants, refundable tax credits, loan guarantee programs, capital equipment leases, and exemptions from capital gains taxes can all assist companies to conserve cash and focus on perfecting their products during this time of limited access to private capital.

Fund large-scale demonstration and deployment projects

Proving the viability of emerging Clean Tech products through large-scale demonstration projects will spur private investment and encourage consumer adoption. Competitive grants, such as the Solar America Initiative program, should be expanded to help fund a wide-range of technology deployments including urban utility-scale renewable energy systems, smart grid technologies, clean mass-transit solutions, zero-emission vehicle infrastructure, Clean Tech streetlights, recycled water, national expansion of broadband, waste-to-energy, and energy efficiency efforts. A portion of funding should be allocated to communities that are willing to be early adopters of these new energy and transportation systems to help defray initial deployment costs and drive down long-term market costs.



2009-2010 FEDERAL Clean Tech Legislative Priorities

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Create a National Market and Increase Demand for Clean Tech Products

Enhance the renewable energy tax credits

Last year's extension of the tax credits has brought significant stability to the renewable energy market. However, the current credit crisis has led to limited access to capital for companies and households looking to procure Clean Tech products. Stronger, technology neutral incentives - including making the credits refundable, increasing the 30% value of the credit, providing additional incentives for American-made products and providing access to government loans for customers - will all help further accelerate consumer adoption.

Adopt a National Renewable Portfolio Standard

California's adoption of a 20 percent by 2012 standard has encouraged significant innovation and investment in clean energy production. A national commitment will further catalyze innovation and create new markets for emerging technologies from Silicon Valley and the entire Bay Area. Ideally, the national standard would mirror California's standard and encompass a wide-range of renewable technologies, including solar thermal; however any progress towards a national standard will benefit the economy.

Set emission reduction targets and adopt market-based compliance mechanisms

Market based policies have proven effective at reducing pollution, such as sulfur dioxide, in the United States and reducing carbon emissions in parts of Europe. A national cap-and-trade program that supports creation of a national market, provides credit for early emission reductions, assigns value to Clean Tech solutions, auctions permits to generate resources for research and development, and promotes technology neutrality should be pursued.

Fully fund Energy Efficiency and Conservation Block Grants

Local governments can use grant funding to retrofit existing buildings creating jobs for local workers and long term energy savings.

Procure renewable energy and zero-emission vehicles

The Federal government is the largest procurer of energy in the world and can leverage this buying power to catalyze the growth of the Clean Tech sector. Strong preference in government procurement should be given to American companies and products with a large percentage of domestic-made or assembled content.

Expand and upgrade transmission infrastructure

Adopt Federal Energy Regulatory Commission (FERC) policies that result in rapid construction of new transmission lines necessary to deliver renewable energy to customers, incorporating superconducting and smart-grid technology.

Establish national standards for interconnection and net metering

Mandate appropriate federal standards for the interconnection of distributed renewable energy generation. Create uniform, consistent standards for distributed net metering, requiring utilities to credit renewable energy producers, ideally at full retail rates, for all electricity delivered to the grid.

2009-2010 FEDERAL Clean Tech Legislative Priorities

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Create national green building standards Local and state governments have, up to now, been creating their own standards for green buildings, using an array of benchmarks. These should be standardized, creating a national market for green building supplies and technologies. This new standard should focus on retrofits, energy efficiency, onsite renewable energy production, transmission, and mass transit.

Increase available resources for green collar career training programs Local community colleges and workforce investment boards are developing curricula and pairing potential workers with companies. The demand for workers is exceeding the supply, creating substantial opportunities for low and moderate-income individuals to find meaningful employment in occupations that cannot be outsourced. Additional federal resources for green collar jobs, such as greater funding for Workforce Investment Boards, will accelerate employment opportunities and stimulate economic growth.



2009-2010 STATE Clean Tech Legislative Priorities

Spur California Manufacturing

- Focus on production*** California has created incredible demand for Clean Tech products through the landmark legislation AB 32 and the Renewable Portfolio Standard. However, incentives are not in place to ensure that this demand generates maximum economic impacts from production. Burgeoning local market demand, rising transport costs, and unstable energy costs are all changing the economics of manufacturing, making production in California more viable than any time in the last twenty years. However, these factors alone are insufficient to overcome the lower cost of doing business in other states or counter the extensive incentives they offer. By supporting innovation and production careers, rather than solely service/application green collar jobs, California can seize opportunities to import wealth into the state, generate new revenues, and improve our trade deficit through the export of locally made products.
- Expand CAEATFA financing model to renewable energy companies*** The “sales-lease-back” policy adopted for zero-emission vehicle manufacturers by the California Alternative Energy & Advanced Transportation Financing Authority (CAEATFA) has the potential to catalyze substantial manufacturing of renewable energy technology products in areas like solar, wind, and fuel cell. Expanding this innovative program to include clean energy manufacturers and suppliers has the potential to make California a competitive place for the production of the innovative Clean Tech products being developed in San Jose and across California. Without incentives that reduce the cost of doing business, these companies are not likely to manufacture in California, eliminating future revenue and tens of thousands of potential jobs during a time of global economic recession.
- Provide incentives for the public and private sectors to “Buy California”*** Consumers currently receive the same California Solar Initiative rebate whether installing a foreign or domestic product. This program should be adjusted to provide a preference for local technologies, thus increasing regional demand for the products of local companies and employees. The SB 2267 legislation signed into law last year, which provides additional consumer incentives that purchase California-made products, can serve as a model for this legislation.
- Reduce initial operating expenses for companies seeking to grow or locate in California*** Innovative companies are being lured by large incentives (tax subsidies, large grants, low-interest loans, etc.) to locate in other states and nations. California has important competitive advantages, namely access to talent and capital. However, these advantages alone are insufficient to ensure that Clean Tech companies will manufacture innovations derived in California. Incentives such as deferring the payment of sales/use tax on equipment purchased until the point of production or deferring property tax until a company is turning a profit would substantially help companies invest in their technologies, grow their business, and create jobs, especially during the current economic recession.



2009-2010 STATE Clean Tech Legislative Priorities

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Continue to expand the market for Clean Tech products

Promote urban utility-scale generation

Transmission infrastructure deficiencies threaten to delay long-range renewable energy projects in California. Rather than focusing solely on constructing large-scale renewable projects in remote areas and investing in the accompanying inefficient transmission systems needed to deliver electricity to load intensive urban areas, state government should promote policies that will encourage distributed generation close to point of use and maximize energy efficiency opportunities. This will reduce demand on existing utility grids and mitigate the need to construct substantial long-distance transmission assets. There are several ways to accomplish this goal, including implementing a feed-in tariff for systems ranging from greater than 1MW to 20MW and opening the retail energy market by reinstating Direct Access in California, thus enabling mechanisms needed to allow for microgrid implementation.

Create a feed-in tariff for solar and other renewable energy producers and allow consumer production to count toward a utility's Renewable Portfolio Standard

In California, there is sizable gap between support for renewable energy systems that are larger than 1 MW but less than 20 MW. The California Solar Initiative and the Small Generator Incentive Program support systems smaller than 1 MW and the Renewable Portfolio Standard (RPS) support the creation of systems greater than 20 MW. The most urgent RPS challenge is achieving the required 20% of electricity sales coming from renewable sources by 2010. The most effective solution to achieve the RPS mandate is to implement a feed-in tariff for Wholesale Distributed Generation (WDG) for systems 20MW and under. On average in California, local distributed generation increases the value of the power generated by more than 25% when compared to inefficient long-range transmission options. In Germany and the broader European Union, the establishment of a consistent rate at which utilities purchase power generated from individual entities increases the profitability of the technologies, reducing the payback period. Such a change by California's Public Utility Commission would significantly increase consumer demand, spurring greater innovation and local job creation.

Simplify and standardize the available incentives for renewable energy production

Extending and expanding current solar rebates will add stability to the renewable energy market and encourage companies and consumer to make long-term plans for adoption and production. Currently, California has an exceedingly cumbersome administrative process to receive the rebates. Where other states and nations offer one-page forms, California's reporting requirements include several hundred pages of forms, scores of signatures, and unclear information about calculating rebate amounts. Simplifying this paperwork will reduce costs for consumers and companies, making renewable energy adoption more cost-effective. Further, additional incentives should be provided to consumers of California-made products (i.e. a slower phase-out schedule or 25% additional credit). Further, incentives should be standardized across different types of renewable technologies to reward performance rather than a specific type of technology.

Expand aggregate net-metering to the private sector

AB2466 provides the precedent for entities to generate renewable energy on one site and credit the power to another parcel. This ability should be expanded to include all applicable parcels within the state.



2009-2010 STATE Clean Tech Legislative Priorities

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- Adopt smart meters and develop smart grid demonstrations*** Smart metering for residential and commercial buildings, municipal infrastructure, and plug-in electric vehicles charging stations should be accelerated, creating incentives to reduce energy consumption during peak load and help consumers avoid high prices. Additionally, by accelerating deployment of a smart grid, California can demonstrate to the nation the economic and environmental benefit from using energy more intelligently.
- Expand state green building standards*** California should go beyond AB32 and mandate aggressive green building standards. Local governments have been creating their own standards for green buildings, using an array of benchmarks. These should be standardized, creating a unified market for green building supplies and technologies. This new standard should focus on retrofits, energy efficiency, onsite renewable energy production, transmission, and mass transit.
- Expand the State Renewable Portfolio Standard*** California's Standard has led the nation and demonstrated the economic impacts from creating substantial market demand. Further expansion and acceleration of the RPS will spur innovation, investment and substantial job creation.
- Increase availability of resources for green collar career training programs*** Local community colleges and workforce investment boards are developing curricula and pairing potential workers with companies. The demand for workers is exceeding the supply, creating substantial opportunities for low and moderate-income individuals to find meaningful employment in occupations that cannot be transferred overseas. The state should partner with local companies and institutions to develop standard certification programs with clear standards and quality control.

2009-2010 LOCAL Clean Tech Legislative Priorities

Increase Regional Coordination

Establish regional green career training initiative

By coordinating the numerous existing programs intended to prepare the green workforce of tomorrow and working closely with the private sector, Silicon Valley can improve the range and quality of programs available for potential employees and employers to seize emerging opportunities.

Expand public private partnerships and demonstration projects

By working closely with the private sector, other governments, and non-governmental organizations, San Jose can leverage broader resources to advance critical components of the Green Vision. Key projects in 2009 should focus on urban utility-scale renewable energy projects, mass transit, electric vehicle infrastructure, smart grid demonstrations, smart meters, waste-to-energy projects, and microgrids.

Establish regional green building standards

Several communities in the region including San Jose have adopted green building standards for new private development. These should be standardized regionally (as well as statewide and nationally), creating a unified market for green building supplies and technologies. Creating shared standards for new development will create long-term demand for Clean Tech innovations. Policies should also be adopted to promote green building practices for existing buildings, focusing on energy efficiency retrofits, onsite renewable energy generation, water conservation, indoor air quality, and mass transit usage.

Standardize and simplify permitting and review process within local jurisdictions

Inspection times for renewable energy projects should be shortened, and inspectors should work with companies to group inspections based on geography which would result in an increase in efficiency of inspectors, thus shortening inspection time. The review and permitting processes currently take many forms across the Bay Area and Silicon Valley. These processes should be both standardized and simplified to allow for systems to be installed at a faster rate.

Create regional infrastructure for zero-emission vehicles

The Bay Area (San José, San Francisco, and Oakland) have put forth a plan to make the region the Electric Vehicle Capital of the U.S. This program should be expanded to other local municipalities in order to transform the area into a hub of zero-emission vehicle operation. With cities, counties, regional governmental organizations, and private sector partners working in tandem, the region's economic and environmental future around clean transportation will be solidified.

Reduce upfront costs for consumers with creative payment plans

Create voluntary assessment districts that allow for the installation cost of solar to be attached to the property tax bills, spreading out payments over 20 years. Power purchase agreements (PPAs) should be examined to enable both public and private facilities to pay for the cost of solar through cost savings. Energy Service Companies (ESCOs) will also allow for operation and maintenance savings to alleviate the upfront cost of installation.





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"Solar on the Tech Museum" photo courtesy of SunPower
"Solar Installation" photo courtesy of Akeena Solar

