

*ICMA 2010 Annual Awards Program
Program Excellence - Community Sustainability
City of San José's Green Vision and Strategic Energy Plan*

PROBLEM ASSESSMENT

Over the past 50 years, San José has seen dramatic transformations from agrarian to technology to information based economies. After the dot com bust in 2001, San José was looking for ways to grow the economy, using the same spirit of innovation and flexibility that had brought about previous transformations. At a time when few others made the connection, San José leaders recognized the inextricable link between environmental sustainability and economic growth as climate change and dwindling natural resources continued to become major global challenges. In October 2007, the City Council adopted the Green Vision, positioning San José to capitalize on the ingenuity and entrepreneurship in the Silicon Valley region, and lead the way in transitioning to a clean energy economy. The Green Vision is a 15 year plan, intended to **create jobs, preserve the environment, and improve the quality of life** of its more than 1 million residents. The goals are:

Goal 1: Create 25,000 Clean Tech jobs as the World Center of Clean Tech Innovation

Goal 2: Reduce per capita energy use by 50%

Goal 3: Receive 100% of our electrical power from clean renewable sources

Goal 4: Build or retrofit 50 million square feet of green buildings

Goal 5: Divert 100% of the waste from our landfill and convert waste to energy

Goal 6: Recycle or beneficially reuse 100% of our wastewater

Goal 7: Adopt a General Plan with measurable standards for sustainable development

Goal 8: Ensure that 100% of public fleet vehicles run on alternative fuels

Goal 9: Plant 100,000 new trees and replace 100% of our streetlights with smart, zero-emission lighting

Goal 10: Create 100 miles of interconnected trails

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Energy touches all of the Green Vision goals: How we use it, where we get it from, how much we pay for it, and how reliable is it, will be key considerations as we advance the Green Vision. Thus, a focused and comprehensive energy strategy is essential to the success of the Green Vision.

PROGRAM IMPLEMENTATION & COSTS

The City's **Strategic Energy Plan** (SEP) provides a roadmap for creating a community where energy is generated and used in the most sustainable manner possible, while spurring innovation, and reducing greenhouse gas emissions. Key components of this plan include:

Municipal Energy

Leveraging various funding sources in the last two years, San José has completed municipal energy efficiency and renewable energy projects at 35 sites, with estimated annual cost **savings** of almost **\$1 million**. A recently established **City Energy Fund** enables reinvestment of the first two year savings into future energy projects, positioning us to really leverage our \$10 million in American Recovery and Reinvestment Act grant funds.

San José continues to help drive **market transformation** with LED streetlights that include advanced control and monitoring systems to maximize energy efficiency. **Extensive research and community outreach** have helped the City select optimal characteristics for 2,000 LED streetlights slated for installation this year.

A key component of the SEP is generating the equivalent of all our municipal electricity use (50 MW) from renewable sources on City facilities or lands. A significant first step was approval of a 1.3 MW solar system at the City's Central Service Yard, with estimated **savings of \$500,000** in energy costs. The City's regional Water Pollution Control Plant, one of the largest waste water treatment plants on the west coast, already receives 3.9 MW or 53% of its energy

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needs from biogas and is exploring solar and fuel cells to address its remaining energy needs.

Community Energy

San José's partnership programs with its utility company PG&E, such as the Silicon Valley Energy Watch, and the Low Income Energy Efficiency program, have greatly benefited residents and businesses, serving over **18,000 customers** since 2007, through **energy audits, retrofits and rebates**. The initial success of these programs has helped San José secure an additional **\$13 million** to be spent over the next 3 years. San José, a Department of Energy designated Solar America City, has received almost **\$2 million** in grants, to expand the use of **solar in the community**. Solar block parties and a Green Vision Education and Demonstration Center, which includes a solar house and demonstration solar technologies, are key components of the outreach strategy. An innovative partnership with the local credit union provides City of San José employees a low cost financing option for residential solar.

This year, San José, along with several other California cities, will be offering a **Property Assessed Clean Energy Plan (PACE)** program for its residents and businesses. This is a voluntary assessment program that will enable property owners to finance energy efficiency and renewable energy projects and repay the loans on their property tax over a 20 year period.

Strategic Partnerships

Innovation has always been a San José hallmark and the City's **Demonstration Partnership** policy allows us to test out new technologies that advance the Green Vision, support emerging technology companies and create jobs. Examples include a partnership with Coulomb Technology to test electric vehicle charging stations and a partnership with Lunera Lighting to test energy efficient interior LED lights.

Partnerships with various **industry consortiums** and **leadership groups** such as Joint

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Venture Silicon Valley Network (Climate Prosperity Project), Silicon Valley Leadership Group (Bay Area Climate Collaborative), Sustainable Silicon Valley, SolarTech, and Electronic Transportation Demonstration Center, enables San José to **leverage resources** and develop **regional initiatives** that advance the Green Vision. San José is home to world-class incubators that nurture emerging clean tech companies and support the innovation and entrepreneurship ecosystem in Silicon Valley.

Workforce Development

San José runs work2future, the local workforce investment board, serving much of Santa Clara County. work2future is partnering with community colleges, industry consortiums and corporations to develop **training programs** that will create a skilled workforce positioned to take advantage of opportunities in the areas of **energy efficiency, renewable energy, and green buildings**. Green Cadre, a training program for at risk youth, helps engage the community on Green Vision related initiatives such as community input on LED streetlights.

TANGIBLE RESULTS & MEASURABLE OUTCOMES

Since 2007, the Green Vision and SEP have improved the quality of life in San José in several ways:

- a. Over **1,000** new clean tech **jobs** created and over **\$3.5 billion** venture capital funds invested in emerging technology companies. This translates into increased employment opportunities for residents and fosters local economic growth in an emerging sector.
- b. Almost **\$1 million in annual savings** from municipal energy projects, allowing this money to be used for other projects and services;
- c. Over **15 MW** of electricity generated from solar, reducing use of energy from fossil fuels and lowering emissions;

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- d. Over **1 million square feet** of new green buildings built, using **15-50% less** energy than other buildings while creating healthy indoor environments for the community to live, work and play;
- e. Almost **12,000 tons** of **waste** converted to **energy** annually to power the water treatment plant;
- f. Over **14 miles of new trails**, with a trail network of almost 54 miles, offering the community alternate commute options and decreasing use of energy from fossil fuels.

Annual performance metric graphs clearly convey progress to the community and examples can be found on the Green Vision website www.sanjoseca.gov/greenvision

LESSONS LEARNED DURING PLANNING, IMPLEMENTATION AND ANALYSIS OF THE PROGRAM

In these challenging economic and environmental times, it is critical for the City to adapt to emerging opportunities, leverage resources, and most importantly, maintain a long-term vision.

Lessons learned from the overall Green Vision, and the SEP specifically, include:

- Create a **comprehensive plan** that guides municipal and community efforts towards a common goal;
- **Invest upfront** on efforts that have far reaching **long term benefits** such as energy efficiency and renewable energy projects;
- Plan for adequate staffing resources and funding matches to **maximize grant funding** and explore other financing mechanisms such as modified fee structures, and improvement districts;
- Develop an integrated strategy to **attract companies** and create a **skilled workforce**
- Drive **market transformation** by testing out innovative technologies; and,
- Form **strategic partnerships** with the public and private sector to leverage limited resources.