



Memorandum

TO: CITY COUNCIL

FROM: Mayor Chuck Reed
Vice-Mayor Judy Chirco
Councilmember Ash Kalra
Councilmember Sam Liccardo

SUBJECT: SAN JOSÉ'S ENERGY PLAN

DATE: May 21, 2009

Approved *Chuck Reed* *Ash Kalra* Date
Sam Liccardo *Judy Chirco*
RECOMMENDATION PH

Adopt a comprehensive energy plan to deploy renewable energy, reduce energy consumption through efficiency and smart microgrid technology, and design a program for residential retrofits and green workforce development.

The Energy Plan is meant to be a comprehensive strategy used to guide the City over the short term. This plan consists of three main points:

1. Renewable Energy
 - A. Install 50MW of renewable electricity on City owned lands for municipal use
 - B. Develop a RFQ process to select a Solar Contractor / Vendor to produce an installation and financing plan and schedule

2. Energy Efficiency
 - A. Perform energy audits and solar assessments on all city facilities
 - B. Use funds from the Energy Efficiency and Conservation Block Grants (EECBG) to begin a program to retrofit all city facilities to reduce energy consumption
 - C. Extend the City Building Energy Project Program (CBEPP) revolving fund from 1 year to 2 years
 - D. Use EECBG funds to install additional smart street lights and apply the dollar savings from those lights to expand the pilot program across the city

3. Community Involvement

- A. Establish a voluntary citywide energy efficiency and solar assessment district to allow all San José residents the opportunity to participate in our Green Vision and receive proceeds from the Federal Stimulus Package
- B. Coordinate workforce training programs with universities, community colleges, job training organizations, and labor unions to ensure we have trained and qualified workers ready to meet the challenge of retrofitting our city facilities, residences, and commercial buildings

OUTCOME

The City council unanimously voted to enact San José's Green Vision in October 2007. Since its inception many notable advancements have been made. Specifically the adoption of our Green Building Policy, advancements towards our recycling goals, and the creation of over 2000 new clean tech jobs. However, we have seen smaller gains in our efforts to reach our renewable energy and energy efficiency goals.

With the passage of the American Recovery and Reinvestment Act (ARRA) we have a unique opportunity to make significant progress towards these energy objectives.

Renewable Energy

City operations, excluding the Water Pollution Control Plant, use approximately 100 Megawatts of energy. By developing a coordinated energy plan that will reduce our consumption and generate renewable energy we can take significant steps towards achieving our Green Vision goals. With over 300 days of sunshine annually, San José is perfectly positioned for large scale solar generation to meet our needs. Consistent with Green Vision Goal #3 (receive 100% of our electrical energy from clean renewable sources), San José will develop an RFQ process to solicit proposals from companies to produce a strategy that will achieve 50 MW of solar energy. The strategy will include site specific design, financing options, and construction timelines to realize our goal and leave open the possibility for additional RFP's on other city facilities to demonstrate new renewable energy technologies and varied types of solar systems.

Energy Efficiency and New Technology

To get the most out of the renewable energy we will generate, we must first improve the efficiency of our city facilities (Green Vision Goal #2 reduce energy consumption by 50% per capita). By extending the CBEPP revolving fund from one to two years, the city can upgrade our facilities at a much faster pace and allow us to stretch our ARRA funds further.

Using the information provided by the Department of Energy's Tiger Team and PG&E we can develop specific proposals for every city building to reduce our energy use up to 25%. Armed with

this baseline information staff can develop a matrix that allows us to prioritize sites for retrofits based on a cost benefit analysis. To better manage our energy use and solar energy generation, we

should establish a microgrid and deploy smart meter technology and system protocols to allow the city to realize its maximum potential for energy reductions.

The City of San José, working in partnership with the lighting industry, has developed a new smart street light. A pilot program is underway to install 260 lights in neighborhoods across the city. Using ARRA funds we should install additional lights throughout the city and use the money saved from these more efficient lights to further expand the program to change out our current street lights to smart energy efficient ones.

Community Involvement

To achieve the overall energy goals outlined in the Green Vision we must include all of our city residents. With the passage of AB811 the City of San José has an opportunity to participate in a statewide pilot program to establish a voluntary energy efficiency and solar assessment district that covers the entire city. This program will allow all city residents the opportunity to retrofit their homes to use less energy and install solar systems on their homes with little or no up front cost. To help our residents take advantage of the wide variety of energy efficiency and rebate programs offered by the state and federal government as well as programs offered by state commissions, non-government entities, and PG&E, the City should develop a coordinated outreach program to inform our people of their options. This effort will afford all residents the opportunity to participate in San José's Green Vision and receive benefits from the Federal Stimulus package.

To ensure we have the workforce ready to meet these challenges we must develop a residential home retrofit and workforce development training program to allow all of San José's residents the opportunity to improve their home energy efficiency, reduce their utility bills, and improve the value of their homes.

Additionally, must partner with our Universities and Community Colleges, job training organizations, labor unions, business groups, and our clean tech companies to develop the curriculum necessary to train workers to perform the audits and retrofits and develop career path opportunities for these workers to turn entry level jobs into green careers.