

# San Jose's Green Vision

*Can cities become richer by becoming greener?*



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# San Jose's Philosophy

1. Sustainability is good for economy & will create more jobs and prosperity than are displaced
2. Clean technology is not simply an emerging industry sector, but rather a mechanism to transform the entire global economy
3. The worldwide competition for clean tech jobs will be intense and success will require policy entrepreneurship & strategic partnerships



# Basic Framework For Green Economy

Cities can create a market and spur growth by influencing both supply & demand-side levers:

## Supply Side

- ✓ Innovation & Manufacturing of Clean Tech products
- ✓ Employment in Clean Tech & support industries

## Clean Technology

### Market-driven innovations that:

- ✓ Utilize renewable energy sources
- ✓ Manage energy resources more efficiently
- ✓ Reduce environmental impacts

## Demand Side

- ✓ Awareness & Adoption of Green practices
- ✓ Purchase of Clean Tech products



# Green Vision

San Jose's 15-year plan  
built upon Economic  
Development Strategy  
to spur job growth,  
demonstrate environmental  
leadership & build a model  
21<sup>st</sup> century city



# Green Vision Goals

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



# Green Vision Development

## **Citywide team working advance strategic goals:**

- Driving economic growth & create well-paying jobs
- Growing revenues for vital city services & reducing costs
- Improving quality of life & attracting young talent
- Showcasing environmental leadership & reducing the region's carbon footprint
- Demonstrating that economic growth & environmental sustainability are interconnected



# Green Vision Implementation

## Organization:

- Steering Committee: City Manager's Office & Executive/Senior Staff (Sponsors)
- Implementation Team: Individual Goal Leaders

## Benefits of Integrated Approach:

- Collaboration/removal of departmental silos
- Engagement of entire organization



# Transforming Challenges into Opportunities

## Challenge: Street Lighting

Electricity & maintenance costs

~\$4.5 million per year

~16,000 tons of CO<sub>2</sub>



## New Lighting Policy

Reduce costs & emissions

Replace traditional lights w/ efficient lights

Increase renewable power

Provide electrical vehicle charging stations



## Spur Job Creation

Catalyze innovation/incubation



Drive manufacturing & installation jobs

Create global export opportunities

Generate revenues for City services

## Create Market

LED lighting innovation

Smart communications technology

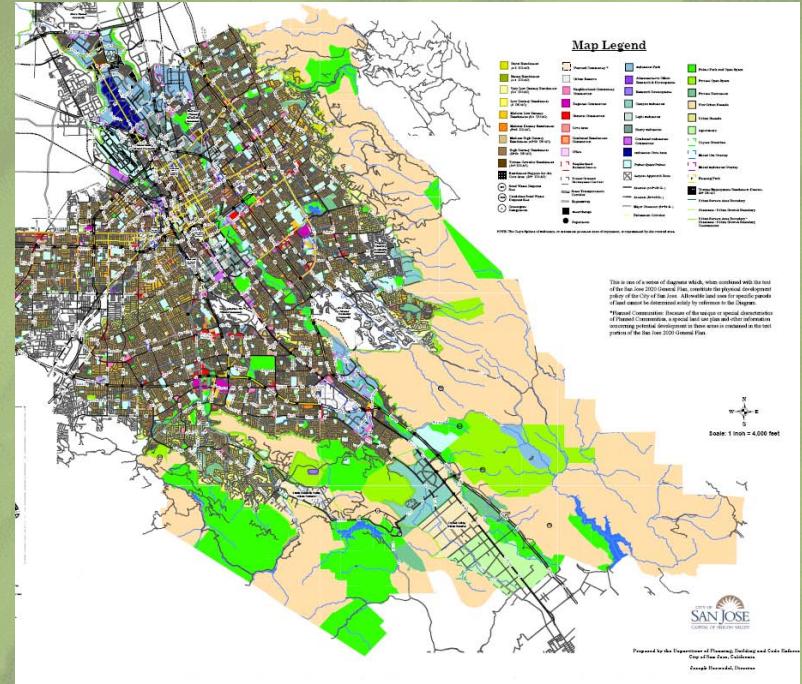
Integration of lighting & solar

Infrastructure for electric vehicles



## Key Areas of Focus: Land Use

- Envision San Jose 2040 (General Plan Update)
- North San Jose Vision
- Employment Lands Preservation Framework
- Green building standards for new construction & large rehabilitation projects
- Transit-oriented design & greater density



# Clean Tech Strategy: Key Opportunities

- **Renewable Energy:** solar (PV, CIGS, CSP, CPV), fuel cell, storage/distribution



- **Green Building:** energy efficiency, control & monitoring systems, LED lighting, materials

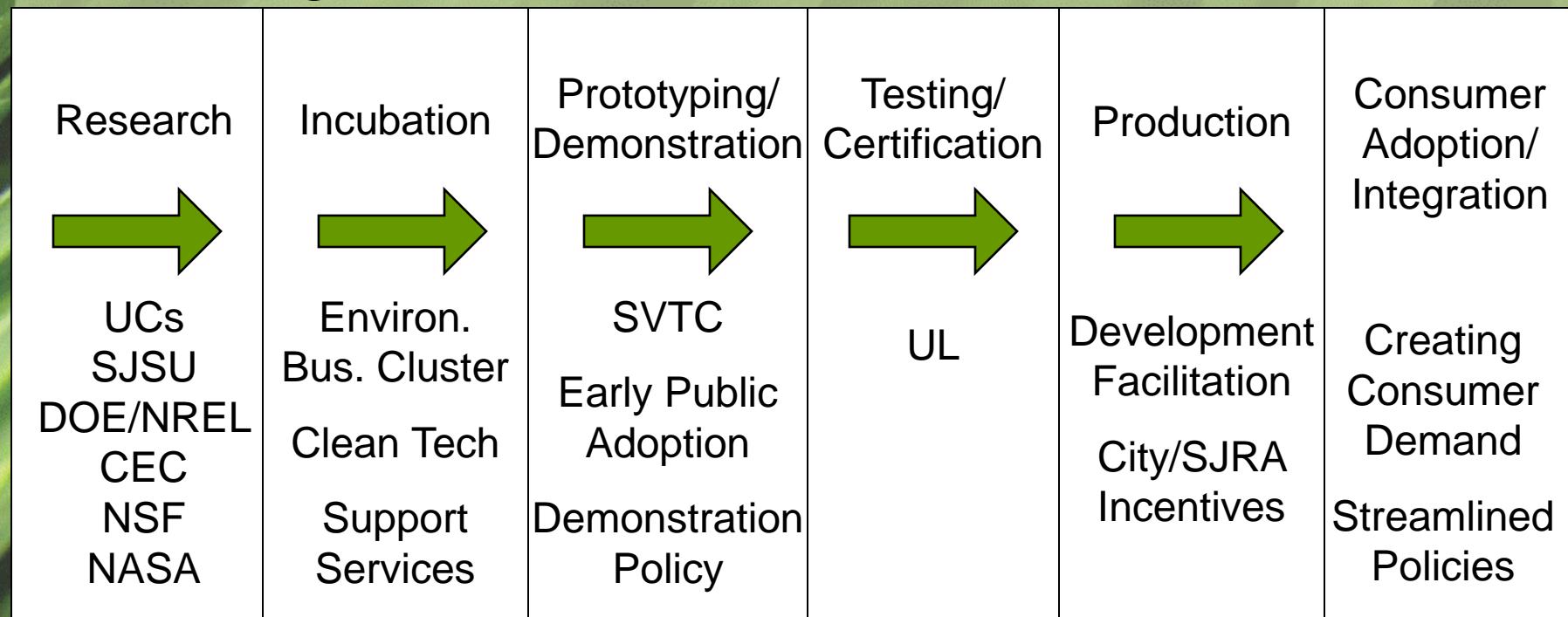


- **Clean Transportation:** alternative fuels & vehicles, mass-transit, smart infrastructure



# Clean Tech Strategy: Approach

## SJ's Integrated Model for Clean Tech Innovation:



← Workforce Development →



# Clean Tech Strategy: Innovation

World class incubators:



Capitalizing upon venture capital investment:

- ✓ Silicon Valley companies received 62% of total CA investment & 21% of total U.S. investment in 2007

Forming new incubation partnerships:



# Company Attraction & Expansion

## Nanosolar

- ✓ Manufacturing thin-film solar cells in San Jose
- ✓ \$300M in venture capital & 300+ jobs



## Philips Lumileds

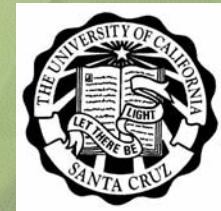
- ✓ Manufacturing energy-efficient light emitting diode (LED) products
- ✓ 540 jobs



# Workforce Development

## Innovative training programs:

- ✓ On-the-job training & classroom programs
- ✓ Industry involvement in community college curricula
- ✓ Job placement/employee recruitment services
- ✓ Green collar job training with Federal, State and private funds



# Building Green Economy of the Future



San Jose is home to 3,500+ clean tech and green collar jobs, including:

**SUNPOWER**

 **ECHELON**

**LUMILEDS**™

LIGHT FROM SILICON VALLEY

 **TESLA**  
TESLA MOTORS

 **STION**  
corporation

 **BAYBIO DIESEL**

**DINYARI**™  
INCORPORATED

 **BioFuelBox**™

 **SOPOGY**™

**BORGATA** **RECYCLING**

 **DINYARI**  
INCORPORATED

 **nanosolar**

 **Fat Spaniel**  
TECHNOLOGIES

 **GREEN WASTE**

 **Solexant**

**SOLOPOWER**™

 **SVTC**™



# What Makes San Jose's Strategy Different?

- **Complete integration of economic development and environmental sustainability efforts**
- **Belief that climate change presents the greatest economic opportunity since WWII, rather than impediment to business**
- **Recognition that massive scale of challenge demands bold action, innovative policies, programs, and funding mechanisms**



## Conclusion

*Can cities can become richer by becoming greener?*

Yes!!

Questions and Dialogue

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