



**GREEN BUILDINGS, GOOD JOBS,
SAFE JOBS:
SOCIAL JUSTICE PATHWAYS
TO A SUSTAINABLE
LOS ANGELES**

EXECUTIVE SUMMARY

November 2, 2009

2009 UCLA Community Scholars Program



UCLA COMMUNITY SCHOLARS PROGRAM

Community Scholars has been a program of UCLA since 1992. Community Scholars 2009 is a joint, multidisciplinary initiative of the UCLA:

- *Department of Urban Planning*
- *Labor Center / California Construction Academy*
- *Labor Occupational Safety and Health Program (LOSH)*
- *Institute for Research on Labor and Employment (IRLE)*

Authors:

- **Linda Delp, UCLA-LOSH (www.losh.ucla.edu)**
- **Elizabeth Stewart, UCLA Labor Center / California Construction Academy (www.labor.ucla.edu)**

Contributors*	Christopher Gladora	Cristina Ortiz-Calvo
Roxana Aguilar	Laura Henne	Dave Otterstein
Sharon Anderson	Hector Huezo	Elizabeth Paez
Jessica Barcellona	James Irwin	Mathew Palmer
Petar Blanusa	Sarah Jacobs	Greg Ptacek
Sabrina Bornstein	Maeve Johnston	Isella Ramirez
Eileen Burstein	Marcy Koukhab	Nona Randois
Colleen Callahan	Alexis Lantz	Ruth Reyes
Tammy Camarillo	Serena Lin	Maya Saraf
Sharon Gagan Cech	Robert Lizarraga	Margaret Schwartz-Moilov
Haan-Fawn Chau	Aditi Mahmud	Megan Emiko Scott
Camille Cimino	Zoe Elizabeth Mangan	Jose Trujillo
Kristen Coleman	Mike Massey	Jaime Valdivia
Kim Craft	Michael McGroarty	Marisol Wauters
Alexa Engelman	Lori Moilov	Michelle Wong
Clare Robbins Fox	Tom Norton	Additional Contributors:
Daniel Garcia	Brandi Odom	Athena Ullah
Graciela Geyer	Johnny O’Kane	Jean Christophe Le

**See Community Scholars 2009 participants at the end of full report for affiliations*

Community Scholars Teaching Assistant: Revel Sims
Editing Assistance: Kevin Riley; Maya Saraf; Sabrina Bornstein
Report Design: Susan Holcomb

Acknowledgements: Funding for this report was provided by the IRLE with additional support from the National Institute of Environmental Health Sciences (NIEHS) grant # U45ES006173. The report contents are solely the responsibility of the authors and do not necessarily represent the views of the funders. Our gratitude to staff from LA City, IBEW Local 11, and Tree People for facilitating site visits. Many thanks to Terrance Mack (Integrated Energy Systems) and Daniele Aquino (Thomas Property Groups, Inc.) for their expert assistance with our case study. In addition, the UCLA Labor Center graciously hosted weekly classes at their downtown location.

Cover photo: Solar Panels on Roof of Electrical Training Institute of Southern California, International Brotherhood of Electrical Workers (IBEW) Local 11 & National Electrical Contractors Association (NECA), Los Angeles County Chapter



Executive Summary

INTRODUCTION

On April 8, 2009, the Los Angeles City Council unanimously passed an ordinance establishing a **Green Retrofit and Workforce Program**. The Ordinance calls for green retrofits to more than 1,000 city buildings and a workforce development policy that creates career pathways into good, green, safe jobs, targeting those in low-income neighborhoods. The result of a two-year campaign, the Ordinance was developed by the Los Angeles Apollo Alliance, a coalition formed by Strategic Concepts in Organizing and Policy Education (SCOPE) and comprised of more than 25 community, labor, and environmental organizations in Los Angeles.

This groundbreaking Ordinance addresses major issues confronting society today – environmental, economic, and health – and represents the first time a program designed to retrofit buildings and reduce municipal energy and water costs has been combined with training for green, quality, union jobs, with the added provision of pathways out of poverty for residents in low-income neighborhoods and with consideration of worker and community health.¹

The Ordinance represents a convergence of community organizing and local, state and federal initiatives to address climate change at a historic moment. At the local level, the ordinance is one component of the Green LA Climate Action Plan. At the state level, the Global Warming Solutions Act of 2006 (AB 32) requires a reduction in greenhouse gas emissions to 1990 levels by 2020. And at the federal level, stimulus funds are forthcoming to address the dual environmental and economic crises through investment in a green economy.

This report explores ways to effectively implement the Ordinance to enhance the environment, support community economic development and promote the health and wellbeing of workers and building users. The recommendations herein are designed to provide guidance to the Program Director and the policymakers, community, labor and environmental repre-

Green Retrofit & Workforce Program Highlights

- ***Green retrofit city-owned buildings greater than 7,500 ft² or constructed prior to 1978 to achieve LEED®* -EB silver or higher certification***
- ***Improve energy efficiency, water conservation, indoor air quality; integrate sustainable products, processes, renewable energy***
- ***Prioritize investment in underserved communities – local hire, career pathways, Project Labor Agreements (PLAs)***
- ***Appoint Program Director to implement program***
- ***Establish a City Interdepartmental Taskforce and an Advisory Council***

* LEED-EB: Leadership in Energy & Environmental Design, Existing Buildings

sentatives who will comprise the City Taskforce and Advisory Council – with the goal of creating a model program that can be adapted in other cities, in the private sector, and beyond.

¹ Schneider, K. (4-09-09) LA Apollo Helps City Adopt Landmark Green Jobs Ordinance. Apollo News Service



Executive Summary

WHO WE ARE—UCLA COMMUNITY SCHOLARS PROGRAM

This report is a result of research conducted under the UCLA Community Scholars Program. Initiated in 1992, the program is an innovative multidisciplinary program that recognizes the important role that community and labor leaders play in shaping community development policy in Los Angeles. By bringing these stakeholders together with graduate students, the program provides an avenue to develop and apply research skills to critical policy issues facing Los Angeles.

The 2009 Community Scholars course **“Green Collar Jobs, Green Buildings, and Social Justice: Pathway to a Sustainable City”**, was sponsored by the UCLA Labor Occupational Safety and Health Program (LOSH); Labor Center / California Construction Academy; Department of Urban Planning; and Institute for Research on Labor and Employment.

Participants in this year’s Community Scholars course were graduate students in urban planning, public policy, public health and law, as well as community activists, labor leaders and workforce specialists. We represented construction and public sector unions, community and environmental justice organizations, legal aid and youth organizations.² The course was led by UCLA-LOSH Director Linda Delp, with the assistance of Elizabeth Stewart from the UCLA Labor Center / California Construction Academy and Revel Sims, a doctoral student in the UCLA Department of Urban Planning.

Community Scholars 2009 builds on the LA Apollo Alliance’s organizing efforts and was informed by the language and principles of the Ordinance. Using a case study approach, we conducted site visits, reviewed relevant literature and City documents, attended meetings, and interviewed key stakeholders from labor, workforce development programs and the City, as well as energy and environmental specialists with expertise in LEED certification.³ We applied principles of green retrofits to the case of the Vernon Public Library by conducting audits of the facility, interviewing staff, and applying the LEED checklist for Existing Buildings Operations & Maintenance (LEED-EBOM). We drew on our own personal and professional experiences and documented best practices in other cities. The recommendations contained in this report are informed by these activities.

The research culminated in a briefing at Los Angeles City Hall on June 11, 2009 to present preliminary recommendations and solicit feedback from policymakers, city staff, community, labor, and environmental groups who helped shape



Community Scholars at City Hall, 2009

and pass the Ordinance. We subsequently held a community-based conference on August 5, 2009 at the UCLA Downtown Labor Center to present results and discuss next steps for implementation with key stakeholders.⁴

² See “Contributors” page in full report for a listing of Community Scholars participants and their affiliations

³ LEED is a certification program of the U.S. Green Building Council and includes six categories: Sustainable Sites, Water Efficiency, Energy and Atmosphere, Materials and Resources, Indoor Environmental Quality, and Innovation in Operations (<http://www.usgbc.org/>)

⁴ “Working in Unity, Greening our Community” (<http://www.losh.ucla.edu/projects/green-jobs-conference.html.webpage>)



Executive Summary

SUSTAINABILITY, BUILDINGS & THE LOS ANGELES ORDINANCE

We frame sustainability⁵ in terms of environmental, economic and health goals grounded in principles of social justice. We propose that green buildings must contribute to sustainable goals in each of these areas; the government must play a role in advancing those goals; and workers, community members and their representatives must be involved in setting and implementing policies.

Implemented within a framework of sustainability, green building retrofits can address some of the environmental, economic and health problems facing society today.

Buildings and the Environment – Buildings are major contributors to the greenhouse gas emissions that cause climate change. Nationwide, buildings account for 72 percent of all electricity consumed and use 40 percent of all raw materials. They are also responsible for 14 percent of potable water consumption, 38 percent of all carbon dioxide (CO₂) emissions, and 30 percent of waste output.⁶ Green building retrofits can minimize society's impact on the environment.



Buildings and the Economy – The collapse of the financial system, the decline in the commercial and residential real estate market, bankruptcies, foreclosures, and rising unemployment have all translated into an economic recession unprecedented in recent years. The City of Los Angeles and the State of California face huge budget deficits resulting in job furloughs, cuts to programs and services, and suspension of public work contracts. Locally, the Los Angeles County unemployment rate has almost doubled in the past year, reaching 11.4 percent in June 2009; Los Angeles City's rate is even higher, at 12.5 percent.⁷ Energy efficiency and water conservation retrofit measures generate cost savings and help conserve limited government funds. Green retrofit projects also create jobs and can contribute to efforts to rebuild the local economy.

⁵ Sustainability is defined in a variety of ways. One common global definition is: "meeting the needs of the present without compromising the ability of future generations to meet their own needs." Source:

<http://www.epa.gov/sustainability/basicinfo.htm>, accessed September 5, 2009. Definition from the 1987 Report of the World Commission on Environment and Development.

⁶ United States Building Council. "Green Building Research."
<http://www.usgbc.org/DisplayPage.aspx?cmspageID=1718>

⁷ California Employment Development Department, Labor Market Info: Unemployment Rate and Labor Force.
<http://www.labormarketinfo.edd.ca.gov/?pageid=1006>



Executive Summary

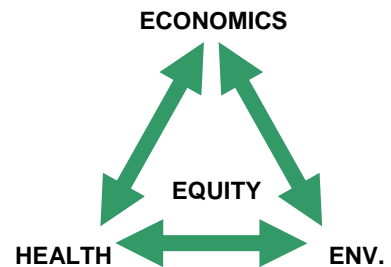
SUSTAINABILITY, BUILDINGS & THE LA ORDINANCE, cont.

Buildings and Health – Older, deteriorating buildings can put construction, maintenance, service and office workers at risk of exposure to health and safety hazards. Maintenance work may release asbestos and lead-containing dust. Research by the U.S. Environmental Protection Agency indicates that the indoor environment can become more polluted than outdoor air, even in large, industrial cities. Indoor air pollutants from a variety of sources may become concentrated in buildings with poor ventilation.⁸ The use of green building materials, safe work practices to limit release of asbestos, lead paint and other hazards, and improved ventilation systems can all contribute to the health of workers and building occupants. They can also result in cost savings by reducing absenteeism and increasing productivity.

Sustainability and LA’s Green Retrofit and Workforce Program – The Program addresses the three components of sustainability outlined in this report – environmental, economic, and health - that stem from our built environment. If implemented successfully, the Ordinance will contribute to the goals of a more sustainable Los Angeles:

- Environmental benefits – through reduced greenhouse gas emissions and environmental resource conservation
- Economic benefits – through cost savings, job creation and investment in underserved communities
- Health benefits for workers and the community – through safe retrofit and maintenance jobs, improved building conditions and use of safer products

Social Justice Framework - True sustainability⁹ also requires that decisions be made through the social justice lens of equity to ensure that disenfranchised community members and workers are empowered, involved in decisions, and equally reap the benefits of a green economy.



The Ordinance prioritizes green building retrofit work and job creation for local residents in areas with high levels of poverty and unemployment. Green retrofit projects have the potential to create jobs and, more importantly, a career pathway with family-supporting wages and benefits. The workforce program created by the Ordinance will build on Project Labor Agreements¹⁰ that have been crafted to balance economic benefits for existing workers and equitable access to jobs for unemployed workers living in poverty.

⁸ United States Environmental Protection Agency, Office of Radiation and Indoor Air. “The Inside Story: A Guide to Indoor Air Quality,” EPA Document 402-K-93-007. <http://www.epa.gov/iaq/pubs/insidest.html#Intro1>

⁹ In his 1996 article *Green Cities, Growing Cities, Just Cities*, Scott Campbell defines sustainability as the center of the “three E’s triangle—Economy, Environment and Equity. We revise the model to explicitly integrate health and to highlight equity as the social justice foundation.

¹⁰ Project Labor Agreements were the subject of the 2008 UCLA Community Scholars class. See the report at: <http://www.labor.ucla.edu/publications/reports/CRA-Report.pdf>



Executive Summary

SUMMARY OF RECOMMENDATIONS

New reports on the green economy surface almost daily. This report focuses on how the concept of green jobs and the goals of sustainability can be applied to the reality of implementing a green building retrofit policy in a major metropolitan area with numerous public sector buildings and with large areas characterized by a history of disinvestment. It contributes to the growing body of knowledge about green jobs by highlighting the need to create **good, green, safe jobs** that benefit community economic development, the environment, and worker and community health. The report is designed to provide information and tools for use by the Green Building and Workforce Program Director, the City Interdepartmental Taskforce and the Advisory Council – entities to be created pursuant to language in the Ordinance.

We set out to answer the following questions:

- With more than 1,000 buildings to be retrofitted, how should the City proceed?
- What specific steps are needed to achieve the sustainability goals of the ordinance—to improve the environment, create jobs and generate cost savings, and promote health and safe job conditions? How can we measure the results?
- What are the workforce development needs? What resources exist?
- Where are potential sources of funds to carry out these efforts?
- How can workers, community members, and their representatives be involved in the decision-making process?

Several principles underlie the recommendations: Our recommendations range from the specific and technical aspects of implementing green building retrofits to the social justice aspects of investing in underserved communities and, ultimately, to the broader goal of building a movement for good, green, safe jobs and a more sustainable Los Angeles.

1. **Sustainability goals** – Implementation of the Ordinance must maintain sight of goals to improve the environment, invest in cost-saving systems, generate good, green, safe jobs, and enhance the health of workers and building users. Implementation must also be carried out through a lens of social justice and equity.

2. **Role of government** – City government must play a critical leadership role as policy maker, employer, owner of large-scale building stock, contract administrator and procurer of equipment and supplies.

3. **Civic engagement** – Involvement of workers and informed input from community, labor and environmental representatives is critical to successfully implement the Ordinance and to create a movement for green retrofits that extends beyond city buildings.



Executive Summary

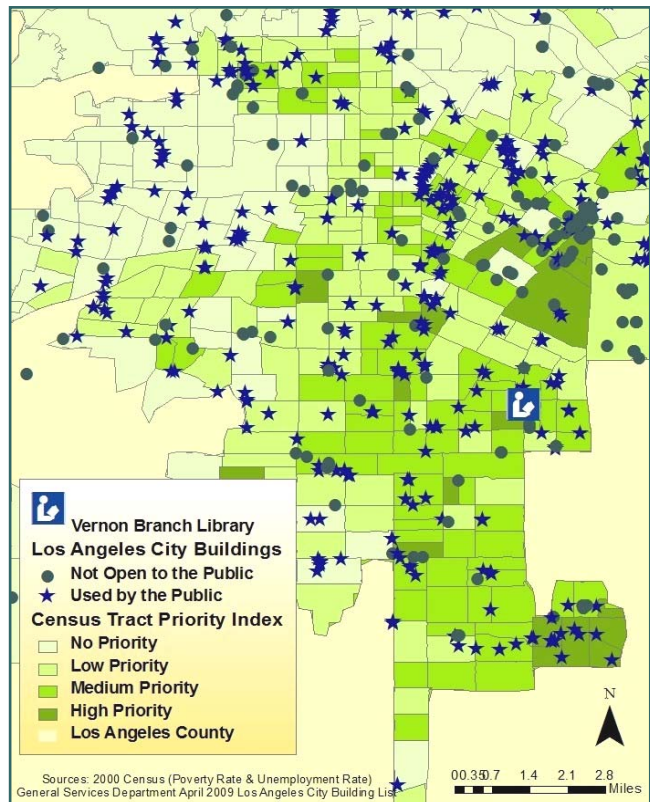
SUMMARY OF RECOMMENDATIONS

1. Establish structures and processes to facilitate the informed participation and involvement of workers, community members, and their representatives.

- Develop a participatory training program for City Interdepartmental Taskforce and Advisory Council members in a forum that allows for mutual education among members and from external advisors.
- Implement an outreach and education plan for city workers and building occupants through city departments and the City Coalition of Unions to achieve worker buy-in and active participation in efforts to green LA City buildings.
- Collaborate with local community-based and youth organizations and schools to create a community outreach and education program. Hold a community event in local public-use city buildings when embarking on a green retrofit project in that community.
- Establish a Joint Labor Management Safety Committee as outlined in the 2007-2012 Mutual Gains bargaining agreement. Educate and involve Committee members in the building selection, audit and retrofit phases to identify health and safety risks workers might confront during retrofits and to recommend appropriate precautions to protect workers, building occupants and the community.

2. Prioritize buildings based on social justice goals and potential for energy efficiency and cost savings.

- Use the Building Selection tool (see report at www.osh.ucla.edu) to create a list of community-serving buildings in areas of high poverty and unemployment to ensure investment in underserved communities.
- Identify those on the list that present health and safety risks and that represent different geographic areas to enhance widespread public awareness and support for the program.
- Select 10-15 buildings from the priority list that represent each major building category for inclusion in a retrofit pilot stage.
- Establish a documentation and tracking system upfront to monitor reductions in energy use and green house gas emissions, water conservation, job creation and enhancement, cost savings and improved health and safety conditions.
- Expand the program to include all buildings targeted by the Ordinance and apply lessons learned from the pilot stage.



Poverty and Unemployment Rate Index—Close-up of South Los Angeles



Executive Summary

SUMMARY OF RECOMMENDATIONS, cont.

3. Conduct Comprehensive Audits and Retrofits to keep sight of the Ordinance's overarching environmental, economic and health sustainability goals.



LA City Library Audit, 2009

- Gather and analyze utility data across the City's building portfolio to obtain a benchmark ENERGY STAR rating for each building. Factor the rating into the building selection process to identify buildings and retrofits that will generate cost savings to help fund the program.
- Conduct onsite comprehensive audits of prioritized buildings. Collect data to inform retro-commissioning and to identify energy-saving retrofits and safety precautions needed. Interview building staff and users, test building systems,

and perform short-term diagnostic monitoring. Document indoor air quality concerns of occupants.

- Establish benchmarks for energy and water use and associated utility costs, rates of injury, illness and absenteeism and other indicators for use in monitoring the impact of retrofits.
- Use the Retrofit Planning Matrix tool (in full report) to initially prioritize energy-saving and water conservation retrofits that will generate cost-savings and create jobs; to achieve ENERGY STAR certification; and to address the 13 retrofit elements in the Ordinance.
- Implement other sustainability-related city policies such as the Environmentally Preferable Products Purchasing Program.
- Achieve and maintain LEED-EBOM Silver certification for all buildings targeted under the Ordinance. This will require investment in retrofits and worker education and involvement to optimize ongoing operations and maintenance.

4. Create partnerships among existing workforce development resources to build pathways into green, sustainable careers – with living wages, safe working conditions, health benefits, and opportunities for growth and advancement – for both City building retrofit jobs and beyond.

- Conduct a 'job audit' for each major building type during the pilot phase to quantify the kind of jobs and associated job skills required and the potential health benefits and hazards of those jobs.
- Build on existing Memoranda of Understanding and on past Los Angeles experience with Project Labor Agreements, local hire policies, the City Jobs model and others to provide promotion opportunities for existing workers and to recruit workers from underserved areas of the City.
- Provide education and wrap-around services to support workers who confront barriers to employment such as the need for job preparation skills, child care, and other social services.
- Integrate education about the environment and the green economy into existing programs – pre-apprentice, apprenticeship and community college, as well as worksource center and community group programs – along with job skills training and health and safety education so workers understand the importance of their role in promoting a green economy and precautions required to protect their own health and the health of other workers and the community.



Executive Summary

SUMMARY OF RECOMMENDATIONS, cont.

5. Identify short-term start up funds and establish longer-term finance mechanisms to sustain and expand the program.

- Use available ARRA¹¹ and other local, state and private-sector funding to jumpstart energy efficiency retrofits and workforce development programs. Potential sources include the Energy Efficiency Block Grant and State Energy Program funds, Department of Labor Workforce Investment Act and Green Jobs funding.
- Use Qualified Energy Conservation Bonds to fund projects that test new green building technologies and to finance an educational campaign to promote green behaviors among workers and communities using public buildings.
- Create a revolving energy fund loan to finance retrofits that have a quantifiable monetary savings or return such as energy efficiency, energy/water conservation, renewable energy, and retrocommissioning.
- Use government funds to leverage private-sector funding sources for expanded programs.

6. Inform workers, surrounding communities and the public at large about the Ordinance, with the longer-term goal of building a movement to expand good, green, safe jobs in the green economy.



- Create targeted media messages and use social networking avenues to reach targeted constituents, including youth and adults.
- Integrate environmental literacy and participatory education activities into programs for the new and existing workforce such as job training and workforce development programs. Where possible, use a peer education approach – worker to worker, community member to community member.
- Create visual factsheets and other materials for distribution at community events. Partner with community groups, churches, schools and other organizations to identify avenues to reach their constituents.

7. Expand the impact of the program by creating a model that can be adapted in other cities and in the private sector. Explore possibilities to revitalize the local manufacturing sector by producing products for green building retrofits.

- Leverage the City's purchasing power to stimulate demand for locally produced green building products and provide incentives to create good, green, safe manufacturing jobs.
- Implement policies to stimulate comprehensive green retrofits within the City's large commercial and residential building stock.
- Provide information and guidance about ways to adapt the Los Angeles City program to other cities throughout the region and to county buildings.

¹¹ ARRA - American Recovery and Reinvestment Act of 2009



Executive Summary

CONCLUSION

Los Angeles has a unique opportunity to implement a Green Building Retrofit and Workforce Program that can serve as a model within the region and nationwide. The Program is innovative in its origin and fo-



LA Labor Community Forum, 2009

cus. Created by a coalition of labor, community and environmental organizations, it establishes a mechanism for ongoing input through an Advisory Council with stakeholders from similarly diverse backgrounds. Its focus is comprehensive, addressing three critical issues facing our society – environmental degradation, escalating unemployment and health problems that stem from our built environment.

A comprehensive approach to implementing the Ordinance will address some of the tensions likely to surface, particularly during this economic downturn.

- *How can we ensure that people desperate to work have access to **quality** jobs rather than being forced to accept any job available?*
- *How can we create **good, green, safe jobs** that provide union representation and lead to careers?*
- *And, finally, how can we balance the need to maintain jobs for existing workers and the need for employment in underserved, disadvantaged communities that confront huge employment and health disparities?*

Los Angeles has taken the lead to confront these tensions through a policy that will create good, green, safe building retrofit jobs and establish a workforce program to educate existing workers and recruit new workers from underserved communities. Through this innovative program, and others that it inspires, Los Angeles leads the way to create a more sustainable city.