

SELECT COMMITTEE ON ENERGY INDEPENDENCE AND GLOBAL WARMING

HEARING ON
BUILDING GREEN, SAVING GREEN:
CONSTRUCTING SUSTAINABLE AND ENERGY-EFFICIENT BUILDINGS

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Testimony of Gavin Newsom
Mayor
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Chairman Markey, Ranking Member Sensenbrenner, and distinguished Members of the Committee. Thank you for the opportunity to testify on the subject of green buildings. In San Francisco, we are proud of our efforts to encourage green building practices. We've gone from modest requirements to green our municipal buildings almost a decade ago to the country's most aggressive green building standards for all new buildings. And critically, with the full support of the building industry and our business community and amidst sustained growth of commercial and residential development.

These impacts of conventional buildings are well known. Seventy percent of total electricity consumption in the US, forty percent of total national energy consumption, and 38 percent of the greenhouse gases produced nationwide are produced by conventional buildings. In San Francisco, this impact is even greater, buildings in our city account for almost half (49%) of citywide greenhouse gas emissions.

In light of these environmental impacts, the advantages of green buildings are abundant: These buildings save energy and water while providing a healthy environment for those working or living in these buildings. They achieve energy efficiency and conservation, improve indoor air

quality, use non-toxic and efficient building materials, and are often located close to public transportation. These buildings save resources while reducing operating costs, and also remarkably improve productivity in the workplace. National studies suggest that resource-efficient buildings can improve worker productivity by as much as sixteen percent by reducing the number of sick days and improving workplace morale.

San Francisco's experience with green buildings began almost ten years ago, in 1999, when we enacted our first green building ordinance. This law change required LEED certification for all city buildings. (In San Francisco, we rely on established national and regional standards such as the US Green Building Council's LEED system and the GreenPoint Rating System). In 2004, we amended this ordinance to require LEED Silver certification for all new municipal construction and renovation projects. This original ordinance also called for a series of ten pilot projects to demonstrate state-of-the-art green building technology.

These pilot projects included the new California Academy of Sciences. When it opens this fall, it will be nation's most visited LEED Platinum building. It will set a new standard of sustainable architectural design, highlighted by green roof of native plants which, in the words of one observer, 'picks up the park and places a building underneath.' Remarkably, this project recycled 100 percent of the old building on site for use in the new building. The building will also include photovoltaics, natural ventilation systems, advanced low-energy lighting controls, and reclaimed/low-flow water systems. Its insulation is even composed of the recycled material of a popular San Francisco invention—blue jeans. This institution will actually use its own

building to teach lessons of environmental stewardship and conservation and engage visitors about the role that the built environment can play in protecting our environment.

Another pilot project in development is the new headquarters of our city's utility, which will be also be built at a LEED Platinum level. It's a new fourteen-story administrative office tower in our Civic Center that will include features such as spectrally-tuned glazing materials on the building to capture and reject solar heat as needed, and light shelves and shading devices with attached solar arrays optimize daylighting while producing electricity on site. It will serve as the hub of a Civic Center Sustainable Resources District—which will link seven buildings including our City Hall to be powered by 100 percent renewable energy. Much of the inspiration for this ambitious network of green building comes from Speaker Pelosi's vision of greening the US Capitol area. These governmental centers—which feature multiple buildings—can and should lead the way as models of sustainability and renewable energy districts within our urban centers.

We're not stopping here. On Treasure Island, a former Navy base positioned between San Francisco and Oakland, we are planning the greenest community in American history with unprecedented sustainability and green building features in the over six thousand homes being constructed. It will be a model of urban density amidst 300 acres of open space, and feature non-auto transportation such as ten minute ferry service to downtown San Francisco.

In 2006, we turned our attention to the entire stock of over 195,000 buildings in our city—both residential and commercial buildings—by establishing a Green Building Taskforce. This taskforce was comprised of ten building industry leaders including building owners, developers,

financiers, architects, engineers and construction managers. They met over the course of several months to determine appropriate incentive and standards to implement in our city and then recommend legislation to my office to introduce to advance this policy.

The taskforce first suggested a priority permitting process for a LEED Gold rated or equivalent building projects. The idea was to create an expedited approval process for buildings that achieve these standards in order to encourage more developers to build green buildings. It was an immediate success, with ten major LEED Gold buildings receiving priority permitting process to date, with seven more awaiting approval.

This incentive is complemented by other tools to help the building industry construct buildings. Our SF Solar Mapping software, for example, uses satellite technology to provide information on the potential solar output on every building in San Francisco. Access the website and simply type in a building address, and this program will tell you the solar energy that could be captured on that rooftop, as well as the environmental and economic savings it will generate.

Then, with the recommendation of the taskforce, we took the largest step to date advancing green buildings in San Francisco: The creation of citywide green building standards for new residential and commercial construction as well as retrofits. The legislation, which is scheduled for approval later this month, imposes green building requirements on newly constructed commercial buildings over 5,000 square feet, and on renovations over 25,000 square feet. The ordinance imposes requirements through a tiered and phased approach. It requires large buildings over 25,000 square feet to achieve LEED Certified standards immediately, and LEED

Gold standards by 2012. Large commercial interior alterations also phase up to LEED Gold standards by 2012, while high rise residential buildings phase up to LEED Silver levels by 2012. Smaller residential buildings phase up to 75 Greenpoints by 2012. (These Greenpoints are part of a GreenPoint rating system suited for smaller residential buildings and established by the organization “Build It Green.”)

These standards represent the most aggressive green buildings standards of a major American city and have remarkable benefits projected over the next four years: Electrical savings of 220,000 megawatts; drinking water savings 100 million gallons; waste/storm water reduction 90 million gallons; construction waste reduction 700 million lbs; recycled material value 200 million dollars; 540,000 car trips reduced; and green power generation of 37 thousand megawatt-hours. And most importantly, considering the climate crisis before us, this ordinance is projected to reduce 120 million pounds of greenhouse gases into our atmosphere.

Thanks to the collaborative approach that we took with the development community in creating the standards set forth in this ordinance, we have received almost no opposition to again what are the most aggressive green building requirements in the nation.

Ten years ago, when we talked about green buildings, a perception existed that green buildings were more expensive and only appropriate in ‘boutique’ situations. Far from high-end boutique buildings, green buildings are being constructed and renovated across our city. Visionary organizations like Enterprise, one of the leaders of this movement represented here today, are through their Green Communities initiative constructing and renovating buildings like Hotel

Essex, an 84-room affordable housing development built in 1912 that will feature a rooftop of solar arrays and a building full of sustainable features.

This perception that green buildings are too expensive for the mainstream has been shattered in our city and region based on the emerging experiences of developers and the cold hard facts and figures of the green building industry.

Trends show that both soft and hard costs for green buildings are decreasing as the market continues to grow and mature. These costs decrease as designers, builders, subcontractors and manufacturers gain experience in an expanding market. A recent report compiled for our city (Greg Kats, “Costs and Benefits of Green Building”) shows an increase in capital costs of only zero to two percent in our region for constructing a green building, but a return on investment of ten times the initial investment within the first twenty years of operation. Another report that our city utilizes (Davis Langdon report, “The Cost of Green Revisited”) actually shows no statistical correlation between cost per square foot and level of LEED certification. Simply put, there are inexpensive conventional buildings and green buildings and there are expensive conventional buildings and green buildings.

Moreover, we’re finding that building green buildings is good for the commercial leasing business. Buildings that carry LEED or Energy Star certifications have been shown to have higher occupancy rates and lease for more dollars per square foot than their peers (CoStar Group, March 2008). One major study, which analyzed a database covering billions of square feet of commercial buildings, concluded that “non-green buildings are going to become obsolete.”

An additional economic benefit to our green building boom are the jobs that come with this expansion. Today, we have more LEED certified professionals on a per capita basis than any city in the country. New firms have emerged that focus on energy efficiency and sustainability of buildings, and workers are being hired by the thousands to install the elements of building sustainability such as energy retrofits and solar installations. Green buildings are part of a clean technology investment boom in Northern California that is about to pass high technology sector terms of the billions of dollars that are invested in the clean and green technology center.

In San Francisco, our experiences have convinced us of two key points related to green buildings:

First, a clear policy pathway exists to address the over one-third of greenhouse gases that result nationally from buildings. Thanks to visionary energy efficiency standards enacted years ago in California's Energy Code (Title 24), our State's per capita carbon footprint is the lowest in the nation. But in San Francisco, we're not stopping there. Implementing point-based environmental building standards that allow developer flexibility while ensuring a unprecedented levels of environmental performance of our building stock will bring large decreases over time in our greenhouse gas pollution. The pilots and testing have been concluded and green building standards been proven to work. Now its time to implement these heightened standards.

Second, green buildings generate another type of green besides environmental performance: monetary savings for the those who invest and construct in new buildings. In our city, we have

witnessed green buildings providing substantial financial return for the industry leaders who have built these projects—with energy savings and high leasing levels sustained over time. As fossil fuel continues to increase in cost over time, the financial advantage of green buildings multiplies.

To conclude my remarks, I would like to make two recommendations to you as federal policy-makers. First, on a issue currently before Congress: In the presence of generations of preferential financial incentives for fossil fuel production, it is absolutely critical to support a reauthorization of the renewable energy tax credit. As we face the crisis of climate change, it's the absolutely least we can do. In cities with green building requirements, this financial incentive allows buildings to achieve required green standards through installation of renewable energy systems. This investment in renewable energy systems—one of the most important elements of green building—decrease a building's energy requirements and costs, lessen a city's energy needs, and ultimately increase our country's energy independence.

Second, consider shifting the tax burdens of Americans from taxing jobs to taxing pollution. It's remarkable to me that we tax something we want to encourage—jobs and income—and place no tax on what we all agree we want to minimize—greenhouse gas pollution. In San Francisco, we're modeling how this can be done on the federal level by increasing a tax on electricity and natural gas use in buildings and decreasing our local payroll tax by a corresponding amount. This tax reform policy will provide an even stronger financial incentive for the construction of green buildings and maximize energy conservation and efficiency in existing buildings. Make

no mistake, this isn't a tax-and-spend concept, but rather a revenue neutral reform that shifts tax burden from taxing jobs to taxing the causes of pollution.

Addressing the climate crisis requires fundamental, visionary policy transformation. Anything less and we will fall short of the environmental leadership that the climate crisis demands of us.

Thank you very much for the opportunity to testify here today.