

City of Las Vegas

Draft - Green Building Program Proposal

Background

The Green Building Program's residential segment was developed in conjunction with the Southern Nevada Home Builders Partnership, formed by the Southern Nevada Home Builders Association (SNHBA) and the Green Building Initiative. The City Council approved the resulting Green Building Program resolution on October, 18, 2006 (see below). Together with the city's community partners, the Green Building Program was developed as an evolving program to support and expand sustainable development.

Existing Green Building Program:

- A new home built by one of the partnership's builders qualifies as a green building if it meets the following requirements:
 - Resources efficiency through the use of recycled and renewable materials and supplies, as well as stringent waste management practices,
 - Energy efficiency at a level 15% greater than required by city code,
 - Water efficiency standards that meet or exceed the Southern Nevada Water Authority's Water Smart Home program standards,
 - Indoor environmental quality through enhanced ventilation and moisture management,
 - Enhanced homeowner education by the builder on sustainable living including recycling, transit, household maintenance and resource conservation.

- Homes built under the program must be field verified by a certified Home Energy Rating System (HERS) rater.

- Ensures new city buildings are built to U.S. Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED) Silver standards (or equivalent).

- Established the Green Building Special Revenue Fund, which dedicates 25 percent of any increase in the total of franchise fees, not to exceed \$2.5 million per year.

The City's only incentive thus far has been the homes that meet the above criteria are recognized by the City, and participating builders are marketed on the City's website, television station, and on other promotional materials.

The Green Council

The Green Council was established to advise the City Manager on how best to implement the American Institute of Architects' (AIA) Blueprint for Nevada. The Green Council decided early on that improving building performance made a significant impact and therefore began revising the City's Green Building Program. Between September 2008 and January 2009, the Green Council, supported by the Departments of Planning and Development, Building and Safety and Human Resources, analyzed the current Green Building Program, identifying goals, developed ideas for new minimum standards, and formulating recommendations for new incentives.

The City's existing Green Building Program was a good first step to establishing a comprehensive Green Building Program and demonstrated the city's commitment to sustainability. The Green Council recommended improving the existing program by including meaningful incentives, adding a commercial component, emphasizing job creation, expanding the program to include existing buildings, using higher LEED standards, and expanding the public education and outreach components.

Five Key Recommendations:

The Green Council made the resulting recommendations:

- Formally adopt the following program goals:
 - Reduce greenhouse gas emissions from buildings 30% by 2030
 - Create an education and outreach program to bolster consumer and constituent support for green building policies
 - Achieve participation by 2015 of 100% of all new and 50% of all existing buildings
 - Emphasize incentives and balance any regulatory requirements, to the extent possible
 - Make program incentives available to all sectors of the building industry (new and existing) and include a component for neighborhood development
- Adopt a program of residential and commercial incentives, which could include:
 - Expedited plan check and inspections
 - Fee reductions or deferments and tax credits, refunds, or abatements
 - Density bonuses
 - Reducing parking requirements
 - Providing energy or water audits
 - Direct grants, loans, or subsidization of LEED certification fees
 - Giving credit, rebates, or refunds for participation in energy savings programs
- Establish minimum performance standards for residential and commercial development, which includes guidelines for both new and existing buildings
- Continue to educate the community on green building and provide further outreach
- Continue to meet and partner with other jurisdictions.

SWOT Analysis – Existing Green Building Program

In their assessment of the current Green Building Program, summarized below, the Green Council performed a Strengths-Weaknesses-Opportunities-Threats (SWOT) analysis to help determine the strengths and weaknesses of the existing program.

Strengths

- The program is a model that is easy for the public to understand and shows a commitment from the City for green building. The Green Council felt that most citizens understand the need and value of constructing green buildings.
- Established a minimum standard for city buildings (LEED Silver).
- Residential certification is a good place for the city to start since residential makes up a majority of the built environment.
- Established a revenue stream of up to \$2.5 million dollars annually.
- Demonstrates the city's commitment to sustainability for the future.

Weaknesses

- The program has an overall lack of strong incentives, which give little drive for developers and homebuilders to consider green building.
- Lacks a commercial component—an entire sector of land use left out that could be promoted further.
- Focuses only on new construction and not on renovations, remodels, or reuses. Because redevelopment shares similar tenets with the green building ideology, renovations should be included
- Uses low LEED standards. Some committee members argued that LEED Silver was not a high enough standard. Other regional buildings are certified gold or platinum, and the city should consider adopting a LEED Gold standard for new city facilities.
- Education and outreach are negligible. Increased awareness of the benefits of green building could bolster consumer demand, and provide constituent support for city investment in building to LEED standards.

Opportunities

- Members agreed that just by having the program alone indicates a sense of community inclusiveness and that sustainable development, conservation, and cost savings are being promoted. This can only be expanded further.
- Program incentives for strategic investment could be developed to assure desired outcomes.
- The program presents a challenge for developers to stay competitive by building to green building standards, and for municipalities to adopt similar programs in order to stay competitive with the City of Las Vegas.
- The program has the opportunity to spur job creation and diversify the local economy through the promotion of the green building industry, due to its specialized need for skilled labor, architects, planners, engineers, and developers.

Threats

- Some members of the community might show resistance to change through indifference (i.e., not taking advantage of the incentives the program offers and continuing to build conventional buildings), vocal opposition, or lobbying.
- Without movement or action on the city's behalf, money for green building may disappear or be reallocated, especially if the area's economy continues to decline, or if green building is considered to be a low priority.

- Although initial construction costs of green buildings are perceived higher, citizens and developers may not understand the long-term benefits.
- Setting Program standards too high or making the program too complex, could lead to a perception of exclusivity and could hinder green building.
- Performance measures may be considered to be unclear; lists of approved materials, energy, water use, solar use and access standards, and landscaping guidelines must be clear.
- Some developers could abuse incentives.

SWOT - Incentives and Standards

The Green Council considered the following incentives and standards as a potential component of the City’s Green Building Program. Staff summarized the comments from numerous discussions below:

Incentive/Standard	Description	Strengths/Weaknesses	Opportunities/Threats
Expedited plan check and inspections	Priority plan check & inspections	Green projects the highest prioritization	Effective and inexpensive to implement
Code team	LEED-AP staff handle and prioritize green projects	Staff familiar with cutting-edge development & technology	Expense and time for training
Fee reduction (rebates)	Fee reductions or partial rebates	Most practical and popular incentive	B&S Enterprise Fund
Fee deferment	Delay payment of fees	A viable alternative to reducing fees	Develop new mechanism
Tax credits and abatements	Property or other local tax credit	Retrofits of existing buildings; aid for Federal incentives, general credit for green projects	NRS would need to be updates – long term incentive
Density bonuses	Build projects to greater heights and/or greater floor area	Density bonus in certain zones for green projects	Would need to update codes and master plan
Reducing parking requirements	Reducing parking requirements by reducing ratios	Decreases GHG’s and VOC’s	Also less parking for businesses
Providing energy and water audits	Show commercial property owners how they could reduce operational costs	Lower consumption and cost	Must subsidize or perform at city’s expense
Baseline energy and/or water requirements	Baseline energy and/or water conservation audit for existing buildings (commercial)	To qualify for incentives – would need to reduce consumption	Verification and cost would be potential issues
Create a building retrofit fund	Improving existing buildings	Improve efficiency of older buildings	Develop new mechanism
Solar requirements	Adding a solar requirement for buildings of certain sizes (commercial)	Encourages efficiency	Expensive, takings issue
Options in program requirements	Code flexibility to allow new or different technologies	Reducing setbacks, approved materials, green building code, offer a checklist	Updating and maintaining the list

Grants	Encourage the use and development of green projects	Direct and can be used a developers discretion	Develop new mechanism
Education	HOA & CCNR's	Educate on green technologies – update CCNR's	Time consuming – does not guarantee changes.
Promotions	Recognition and promotion by City of qualified projects	More recognition – higher profile on materials and website	Updating and maintaining project list – inexpensive
Bonds and loans	City would offer low-interest loans to encourage building/retrofits	Available to any project.	Develop new mechanism

Additional Green Council Recommendations

Education & Awareness

The Green Council agreed that the education and outreach component of the program should be expanded. Educating the development industry and the general public will help to clarify confusion about green building practices. In addition to creating brochures and adding links to the city's website, the city could provide information to builders. Offering uniform materials, hosting educational events/classes, and using common language to describe benefits and incentives will streamline and simplify the program. Constructing a demonstration project, such as the new city hall, will also help increase awareness.

Recognition

The Green Council agreed that more public recognition is needed. Utilizing award programs such as the Mayor's Urban Design Awards could raise public awareness, especially if subcategories, such as 'best indoor air quality,' are added. Members felt that Home Owner Associations and existing businesses need to be informed of green building opportunities, especially the use of solar panels. Providing information packages and "how to" improve efficiency would be advantageous. Finally, representatives of the Green Council can also be used as important resources to help educate the community.

Regional Green Building

Members of the Green Council agreed that this program should be expanded at the regional level. Establishing a regional green building coalition to transmit a consistent message was recommended as well as developing uniform regional standards and incentives. The Green Council recommended discussing regional green building as the Green Building Program is updated.

National Trends:

The Database of State Incentives for Renewables & Efficiency (DSIRE) provides summary tables of the latest incentives offered by Federal & State Governments, Utilities and Local agencies (last updated 3/30/09).¹ Incentives are analyzed and categorized by type. Loans and rebate program tend to be the most popular types of incentives across the Country:

¹ Database of State Incentives for Renewables & Efficiency (DSIRE) www.dsireusa.org (Retrieved 3/30/2009). Established in 1995, the Database of State Incentives for Renewables & Efficiency is an ongoing project of the North Carolina Solar Center and the Interstate Renewable Energy Council (IREC) funded by the U.S. Department of Energy.

- Personal Tax 16
- Corporate Tax 13
- Sales Tax 11
- Property Tax 5
- Rebates 687
- Grants 49
- Loans 207
- Bond 2

DSIRE also provides summary tables for the Rules, Regulations, & Policies for Energy Efficiency. The various components for Federal, State and Local Government programs are separated into the following four categories – with the most popular being Energy Standards for Public Buildings and Building Energy Codes:

- Appliance/Equipment Standards 14
- Energy Standards for Public Buildings 51
- Building Energy Codes 53
- Public Benefits Funds 22

Analysis of National Trends

The Green Council’s recommendations are supported by the national trends. The most popular incentive is a rebate, utilized three times more often than the second choice. Fee reductions was also the most popular recommendation from the Green Council, with typical fee reductions being returned to developers once the project is completed or certified. The second most popular incentives were loans. Providing low-interest loans provides an opportunity for the general public to make improvements to their existing homes or offers new home builders to the option to build greener.

The City’s existing Green Building Program created an energy standard for new public facilities (LEED Silver or equivalent), following the second most common rule, regulation, or policy. The City’s adoption of the 2006 International Energy Conservation Code took the city to a higher level of energy efficiency, but not quite as efficient as some of the newer codes being adopted in 2009. Expanding the green building program to include residential, commercial, and existing homes and businesses will provide architects, builders, and developers an opportunity to experiment with the latest green building technology before the city adopts a more conservative code.

Cost Analysis – City of Las Vegas

To conduct some preliminary analysis of the recommended incentives, staff from the Planning & Development Department consulted staff from Building & Safety and Public Works. The results from this analysis are in the following table:

Incentive	Description	Building/Project	Per Unit Cost
Green Building Entitlement Team	In addition to their regular duties, the Green Building Entitlement Team, made up of staff from Planning and Development, Building and Safety, and Public Works, will be responsible for the green building application process.	N/A	N/A
Expedited Plan Check	Qualifying applicants would receive a percent discount off the express plan check fee (B&S fees: \$500 administrative fee and \$600 per hour over and above the regular permit fees)	Project	\$1000
Expedited Inspections	Qualifying applicants are prioritized for a field inspection (B&S fees: \$100 per hour; \$25 for each quarter hour after first hour)	Building	\$50
Fee Reduction	Qualifying applicants would receive a discount of the total cost of the building permit fee (Building Permit cost is \$561 for the first \$100,000 of valuation, plus \$3.10 for each additional thousand dollars of valuation plus \$50.00 admin fee).	Building	\$250
Fee Deferment	Qualifying applicants would be allowed to defer payment of fees to a date not greater than x months from the date of application approval	Project	
Tax Credits, Refunds, Abatements	Any qualifying application would receive an x% credit/refund/abatement on a specified tax to the parcel owner for the year in which the certificate of occupancy is issued.	Building	
Density Bonus	Any qualifying commercial application can increase their building's square footage, height, or setback, subject to specifications and conditions	Project	
Green Building Grants	Any qualifying application would receive a monetary grant to be used at the applicant's discretion (fees, small expenses, etc.)	Project	\$1,000 - \$2,000
Residential LEED Certification Refund	Any qualifying application pursuing LEED for Homes certification will be reimbursed x% of the certification fee, subject to verification.	Building	up to \$5,000
Commercial LEED Certification Refund	Any qualifying application pursuing LEED certification (subject to verification) will be reimbursed the certification fee at a rate of 25% for LEED Certified, 50% for LEED Silver, 100% for LEED Gold/Platinum	Building	\$2,000 - \$5,000
Reduced Parking Requirements	Any qualifying application is permitted to reduce the required number of parking spaces (specified in calculated schedule) provided that the applicant meets specified conditions	Project	

Program Expansion:

Minimum standards and qualifications for City of Las Vegas' incentives are:

- Water Smart Homes
- ENERGY STAR[®]
- And one of the following:
 - **New Commercial**
 - LEED
 - New Construction (NC),
 - Core & Shell (CS),
 - Retail,
 - Neighborhood Development (ND)
 - **New Residential**
 - LEED
 - Homes,
 - Southern Nevada Home Builder's Partnership
 - **Existing Buildings**
 - LEED
 - Commercial Interiors (CI),
 - Existing Buildings (EB, E-BOM)
 - Home Performance with ENERGY STAR[®]
 - **Existing Homes**
 - Home Performance with ENERGY STAR[®]

Incentives by Type

Building Type	Program	Sub-Program	Monetary Incentives	Low-cost Incentives
New Commercial	LEED	New Construction	Rebates, Grants, Bond and/or Loans	Expedited plans check Expedited inspections Promotion Density bonuses Reduce parking requirement
		Core & Shell		
		Retail		
		Neighborhood Development		
New Residential	LEED	Homes	Rebates, Grants, Bond and/or Loans	Expedited plans check Expedited inspections Promotion
	Southern Nevada Home Builder's Partnership			
Existing Building	LEED	Commercial Interiors	Rebates, Audits, Grants, Bond and/or Loans	Expedited plans check Expedited inspections Promotion Density bonuses Reduce parking requirement
	Home Performance with ENERGY STAR®	Existing Buildings		
Existing Home	Home Performance with ENERGY STAR®		Rebates, Audits, Grants, Bond and/or Loans	Expedited plans check Expedited inspections Promotion