

Las Vegas Ranking In The Green; No, The Other Green

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Assembly Bill 621 Puts Nevada on the Leading Edge of Energy Efficient New Construction in the Country

A. Introduction

On December 5, 1973, when Kirk Kerkorian constructed the MGM Grand Hotel and Casino, which at the time was the largest hotel in the world, its Wizard of Oz-inspired emerald curtain wall could have allowed him to claim it as one of the largest green buildings in the world.¹ Nearly thirty two years later Kerkorian's MGM Mirage announced the development of its CityCenter project, which when completed in late 2009 according to the company's scheduled opening, will again put a Las Vegas megaresort in the running for one of the largest green buildings in the world; green, as in energy efficient and sustainable.² In a city that has built its reputation on outdoing the next guy, starting with an exploding volcano, a dancing water ballet in an 8-acre lake right on Las Vegas Boulevard, and even an indoor replica Venetian canal, Las Vegas' largest gaming companies have put their latest multi-billion dollar developments into the sustainability race, which can only mean good things for the green movement.

To understand the impact of Las Vegas on any movement, green or otherwise, one need only look at its rich history of unprecedented growth. Las Vegas has defined and redefined itself since its not so humble beginnings, always adhering to two principles: bigger and better. The first hotel in Las Vegas had a modest 30 guest rooms.³ In 1946, the Flamingo hotel opened its doors with approximately 200 hotel rooms.⁴ As of 2007, Las Vegas boasts 151,000 hotel rooms, ranking it first in that category in the country, twice the 80,000 rooms in New York City, with Orlando ranking second with 111,000 hotel rooms.⁵ In 1970, the first year that visitation records are believed to have been officially kept, Las Vegas' annual visitation was approximately 6 million people.⁶ Less than thirty years later, in 1999, Las Vegas surpassed Mecca, Saudi Arabia, as the most visited place on earth with 37 million visitors, making the Las Vegas Strip one of the busiest and most walked streets in the country.⁷ Las Vegas' scale is not even limited to planet Earth.

The Fremont Street Experience, a domed electronic canopy in downtown Las Vegas with an estimated 12.5 million LED bulbs, as well as the beam of light atop the Luxor Hotel and Casino are part of the Las Vegas lights that along with the Great Wall of China, are believed to be one of the only man-made structures visible from space.⁸ It is that type of scale, along with the associated energy consumption and environment related issues that forced Nevada and Las Vegas to start factoring green into its growth plans.

So, what can Las Vegas mean for the green building movement? To provide some context, when it comes to energy efficiency, buildings are clearly where you can really make a difference. According to a presentation made to the Nevada Legislature in 2005, buildings represent 39% of the U.S. primary energy usage, 70% of U.S. consumption of electricity, 12% of all potable water (that's about 50 million gallons per year), and 40% of the raw materials consumed.⁹ Take those figures and apply them to some of the largest buildings in the world, built in the middle of one of the hottest places in the world, and you can start to appreciate the challenge and opportunity for Nevada and especially Las Vegas and the gaming industry to transform this market. Experts in this area have observed that the 24/7 nature of the hotel industry and the wasteful energy consumption habits of its transient guests provide significant potential for energy efficiency.¹⁰ Indeed, based upon a 2000 report by the Alliance to Save Energy, Las Vegas can be expected to spend at least \$2/square foot annually in fuel and energy costs for its hotel rooms, or in excess of \$1,000 per year for Las Vegas' newest and largest standard rooms.¹¹

B. Background

Notwithstanding the high costs of energy, the costs associated with building green to reduce those costs are significant in their own right. According to a comprehensive report prepared in 2003, the green building construction cost premium can be as high as \$3-5/square feet, compared to an approximate \$.30/square foot reduction in energy costs by employing such technology.¹² That level of investment would require anywhere between a ten to twenty year payback in terms of a return on invested capital analysis. In an industry that has seen a 100% return on capital in a single year in some segments of its business, employing capital in search of what could be a twenty year return is not

an easy case for the chief financial officer of a gaming company to make to its management team, especially in the capital intensive world of designing, building and maintaining world class multi-million dollar resort destinations.¹³ While that same study found that the green building premium in an industry and geographic area can go down over time with the normalization of processes and the maturation and education of the local construction industry and suppliers, that decrease in costs over time would not reduce the immediate costs of the current projects. Indeed, arguably, such an investment may only benefit competitors that are able to construct their buildings greener at lower costs subsidized by the early investment of others that helped to mature the market.

Certainly, some of that maturation of the market is already taking place in terms of new technology, products, and construction materials that developers and operators can implement without too much capital investment or at least a capital investment that can be readily justified in terms of a bottom line analysis. For example, in 2000, the electrical supervisor for the Las Vegas Convention and Visitors Authority was trying to figure out what to do with the used light bulbs that it takes to illuminate the 3.5 million square feet of the Las Vegas Convention Center.¹⁴ Instead of stock piling boxes with used bulbs that took up space that he did not have and which also risked breakage and exposure to the mercury contained within them, the LVCVA began researching a greener solution, which

it found in the form of the Bulb Eater®. The Bulb Eater® is a product that crushes approximately 1,000 bulbs and lamps in a fully enclosed 55 gallon drum that is periodically hauled away through an EPA approved hauler for far less handling and transportation costs than the trash removal of the bulbs based upon common practices. When asked what led to his decision, the supervisor stated that while “[w]e were never told to do it”, after reducing his recycling costs on bulbs and lamps from nearly \$4 to \$.30, that his green disposal method “was a smart choice”.¹⁵ His comments are reflective of the initial steps that Nevada and casinos in Las Vegas have taken towards green building and operations and sustainability.

About five years ago Park Place Resorts (now operated by its successor Harrah's Entertainment Company) worked with the Southern Nevada Water Authority to institute water conservation measures in its five Las Vegas properties by reducing its off-hour watering and the use of irrigation drip systems, as well as converting its turf to low water-use xeriscape (from the combination of the Greek word “xeri” meaning dry and “landscape”), which measures were estimated to conserve 22 million gallons of water annually.¹⁶ Santa Fe station recently removed 200,000 square feet of grass and replaced it with its own xeriscape for an annual savings of 6 million gallons of water a year.¹⁷ On the recycling front, Stations casino implemented a program two years ago that resulted in two of the major properties recycling 10 tons of material per



day, ranging from cardboard, to plastic, to even kitchen grease.¹⁸ Boyd Gaming's Suncoast has reduced the amount of trash it sends to the landfill by about 70% after instituting a recycling program that began as an effort to recover lost silverware and glassware, and grew into recycling discarded food into compost.¹⁹ In terms of electricity use, the Mandalay Bay reduces its power load to its trade show halls by 50% when they are empty and during move-in for those shows, by turning off its air conditioning entirely and leaving the doors open.²⁰ Other properties are switching out their incandescent bulbs for lower-energy use compact fluorescent light bulbs, which over the life of the bulbs can mean a savings of over 75%.²¹ While all of these measures represent important progress in greening our buildings, they are really the "low hanging fruit" that all of the resort owners should be taking advantage of. For Nevada and the gaming industry to take the next step in sustainability would require further support and commitment from not only the industry but also the State and its citizens. That support and commitment came in the form of tax abatements in Assembly Bill 3, and later, Assembly Bill 621; but first, a look at the role

of tax abatements and incentives in fostering new technology.

C. Role of Tax Abatements In Promoting New Technology

Economists Bruce Cone and Alex Fassbender observed in a 1978 analysis that "[i]ncentives are typically used (1) to promote a new technology during the early stages of development and (2) to pay the differential between the value of an activity to the private sector and its value to the public sector."²²

Ever since recognizing this gap between the social benefits from private research and development, experimentation and the market forces that prevent such investments, governments (federal, state, and international alike) have worked to promote such activities. This gap is even more problematic when the technology being developed is not immediately commercially marketable though it represents a long term potential benefit to society. In 1981, the United States Congress passed the Economic Recovery Tax Act, which included a research and experimentation income tax credit of up to 20% of a company's qualifying research expenses.²³ Under

the program, as of 2001, the federal government had granted over \$40 billion in tax credits.²⁴ At least 32 states offer similar research and development tax credits.²⁵ While the United States is one of the leaders in such support, other countries are also providing similar support to private industry. For example, Canada and Ireland offer a similar 20% tax credit, France offers a 50% tax credit. Australia offers a 125% deduction for R&D expenses and 175% to the extent expenditures exceed the prior year. China offers a 150% deduction while Japan offers a 10% - 15% tax credit for its companies.²⁶

Though it is difficult to point to the tangible effectiveness of these tax abatement programs as the tax credits are only intended to support what is otherwise unsubsidized research that it is already taking place, studies indicate that for every dollar spent by private enterprise on research, the benefit to society ranges anywhere from at least 25% for electrical products to eight hundred percent 800% for scientific equipment.²⁷ That said, one such market changing product that relied on government tax credits that has great potential to affect the greening of buildings is the Powersheet® cell. This is a product that was developed by a company called Nanosolar, who received \$50 million in federal tax credits towards its Powersheet.²⁸ The Powersheet cell reduces the cost of production of solar panels from





approximately \$3/watt to 30 cents per watt, making solar technology cheaper than burning coal for the first time in history.²⁹ Because of this breakthrough, Nanosolar will significantly reduce solar power technology costs and with its construction of a new plant in San Jose will be able to produce 430 megawatts of solar energy per year, enough to handle the energy needs of over 300,000 households.³⁰

With the backdrop of that national trend and the environment of that innovation³¹, Nevada Governor Kenny Guinn signed Assembly Bill 3 (“A.B. 3”) on June 17, 2005, to provide tax incentives for owners that designed and constructed according to certain LEED energy efficient and green standards.

D. Assembly Bill 3 and Senate Bill 567

A.B. 3 provided for sales, use tax exemptions, and property tax abatements to projects that met these standards upon completion.³² The sales and use tax exemption applied to the local (or non-State 2% portion) of the sales and use tax due on construction products and materials used in the construction of a qualifying building.³³ The property tax abatement was fifty percent (50%) for up to 10 years.³⁴

By some reports, the legislators that passed A.B. 3 believed the fiscal impact of the tax abatements provided for under AB 3 to be as low as \$250,000.³⁵ It was not until MGM Mirage’s CityCenter project filed for LEED certification in early 2007 that

legislators started to consider the fiscal impact of the tax abatements which when combined with other large projects that had filed for LEED certification under A.B. 3, was reported to be as high as \$900 million.³⁶ Based upon those estimates, the Nevada legislature passed Senate Bill 567 (“S.B. 567”) as an emergency measure to suspend A.B. 3.³⁷

The genesis of S.B. 567 really began before the filing of the projects for certification under A.B. 3 in 2007, all the way back to the Fall of 2006 when the State’s budget departments starting recognizing the impact of a downward trending economy on declining tax receipts.³⁸ On November 30, 2006, the State Legislature was presented with economic forecasts that showed that it could not fund its various school budgets.³⁹ Five months later,

the same forecasters had lowered their tax revenue projections by over \$40 million, placing the tax abatements provided for under A.B. 3, holding that the “work of the Executive Branch of State Government to implement these programs must be held in abeyance to give the Legislature time to evaluate all of the information and consider all of the options available to this State to ensure that Nevada’s goals for encouraging energy efficiency are achieved without compromising our ability to meet our financial obligations to adequately fund schools and other necessary governmental services.”⁴⁰

E. Assembly Bill 621

The result of that balancing was Assembly Bill 621 (“A.B. 621”). A.B. 621 continued the LEED tax abatement program by allowing certain early applicants under A.B. 3⁴¹ to continue with their green projects, although with significantly reduced tax abatements. In addition, the State continued the program for new projects with the elimination of any potential sales tax abatement but up to 35% abatement of property taxes for those projects meeting the highest levels of energy efficiency.⁴² The Nevada Department of Taxation and the Nevada State Office of Energy have provided and will continue to proceed regulations and procedures for the processing and reporting of certifications and abatements.

Now that Nevada and the gaming industry are

involved in the green movement, what will it mean? Well consider this. Prior to Las Vegas Sands' opening of its Palazzo resort, the largest green building in the world was believed to be the David Lawrence Convention Center in Pittsburgh, Pennsylvania.⁴³ On April 10, 2008, the United States Green Building Council anointed Las Vegas Sands' newly constructed Palazzo the largest green building in the world, over four times the size of the Pittsburgh convention center. On slate for certification behind the Palazzo to vie for that title is Fontainebleau's 3,800 room, 10.5 million square foot resort, scheduled to be opened in late 2009, CityCenter's reported 18 million square foot resort, and Boyd Gaming's approximate 5,000 room, 13 million square foot Echelon resort in late 2010. These projects, if certified, will likely be trading the title for largest green buildings in the world. The competition will not be with the rest of the world, but with each other, all within a 3 mile stretch of land, better known as the Las Vegas Strip. **NGL**

Special thanks to Kelly Hobson for her assistance in editing and researching for this article. Ms. Hobson is pursuing a undergraduate degree at Gustavus Adolphus College and has an interest in pursuing a career in the hospitality industry and sustainability.



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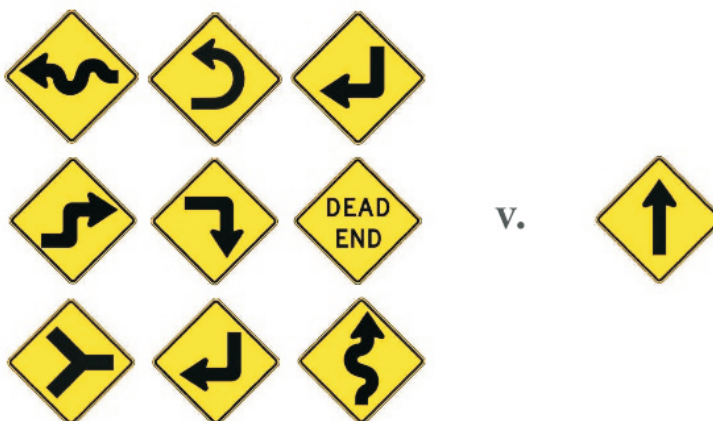
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