CASE STUDY

ROSE GARDEN ARENA, HOME OF THE PORTLAND TRAIL BLAZERS



FACILITY STATS

Location: Portland, Oregon

Began Construction: July 12, 1993

Opened: October 12, 1995 Seating Capacity: 19,980

Owner: Portland Arena Management
Operator: Portland Arena Management

Venue Uses: Professional basketball (NBA), hockey (WHL),

concerts, family shows, conventions

Construction Cost: \$400 million (in 2012 dollars)

LEED certification: Certified LEED Gold for Existing Buildings:

Operations and Maintenance, in January 2010

THE TRAIL BLAZERS' GREENING STORY: MOTIVATIONS, CHALLENGES AND LESSONS FROM THE FIELD

In the sports greening space, the Trail Blazers are true to their name as industry leaders in green building and making a business case for environmentally intelligent operations. In January 2010 the Rose Garden Arena became the first professional sports arena in the United States (and in the world) to achieve LEED Gold certification under the U.S. Green Building Council's Existing Buildings standard.

Three years later, the Blazers are still achieving incremental resource savings in energy, water and waste each year that continue to greatly benefit the team's bottom line. To date the Blazers have saved close to \$500,000 in pure profit after recovering their up-front green investments in full.

WHY GO GREEN?

When it comes to environmental stewardship, the Blazers' fans don't just believe it's an important business consideration, they expect it to be there. Many companies in Portland recognize that they have a responsibility to reflect their community's passion for environmental protection in order to attract and maintain a strong clientele. The Blazers realized several years ago that their organization is no different.

The Rose Garden Arena embraced greening to become a community and market role model while also proving the business case of greening. "Being in what is recognized as one of the most sustainable cities on the planet, the Portland Trail Blazers are proud to play a role in Portland's environmental leadership," says Justin Zeulner, director of sustainability and planning for the team. "Ideally, we are playing a role to best represent the core values of our city and surrounding communities."

The Blazers see greening as way to give back to their community. For Zeulner, it comes down to one key question: How can the Trail Blazers make their community better? Through their greening work, the Blazers have found a way to marry community outreach programs with operational savings to create a sustainable program with multiple dividends.

WHERE TO START?

Like most teams, the Blazers started their greening work by getting buy-in and feedback from as many staff members and partners as possible. They created a "sustainability team" made up of interested people from all departments. "The vision to become the leader of sustainability in the sports and entertainment community was initiated using a team approach, not only involving our staff, vendors, partners and business affiliates, but also embracing the support of our fans," says Zeulner. "We feel our accomplishments and progress to fulfill our future goals are only achievable

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using a team effort, which includes support from our staff, management, fans, visitors, suppliers, vendors, business partners and our community. Attempts have been made to connect with all of these stakeholder groups, soliciting feedback and suggestions."

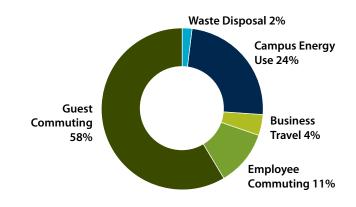
Next, the Blazers decided to hire an external consultant to guide their resource measurement, develop a plan for upgrades and implement greening improvements. "Recognizing that we have a role to play in these larger community objectives, such as enhancing our environmental impact, we started our programs by hiring a local, nationally recognized sustainability consultant, Green Building Services, to accurately measure our current carbon footprint and provide us with a road map toward making significant reductions to these impacts," explains Zeulner. "This involved an extensive Scope 3 analysis and development of several sustainable policies, procedures and programs."

Once the Blazers had mapped out their environmental impacts, they developed a "sustainability charter" to better frame the environmental mission statement that would guide their sustainability efforts. The charter is the Blazers' "driving document that serves as a sustainability road map," according to Zeulner. "The core charter developed to guide our sustainability initiatives, including the development of goals and strategies for each segment of our carbon footprint, was compiled by our sustainability team, a group of over 35 employees from all departments and levels of authority," he explains. "This group was tasked by our president and executives to develop a path that would lead us to become and remain the leader of sustainability within our industry."

Zeulner emphasized that top-level support greatly benefited the growth of the Blazers' green program. "Our sustainability efforts have included senior leadership support, to go along with unfettered dedication by our department leaders and front-line staff," he says. "Executives have paved the way with resources and vision, enabling environmental enhancement projects to be achieved."

Thanks to strong executive leadership on greening, Zeulner's sustainability team was able to quickly get green initiatives happening in departments throughout the Rose Garden's operations. "Food and beverage management has found creative ways to source local and organic foods and developed incentive programs to excite concession and kitchen staff to recycle and compost," Zeulner notes. "Operations teams have implemented purchasing strategies to ensure that we have eliminated toxic cleaning products from our facilities, that strict environmental policies are met regarding renovation and maintenance projects, and that

Portland Trail Blazers Carbon Footprint



we continue to strive toward zero waste. Guest Services find creative ways to help inform and encourage fans to recycle and compost while visiting the Rose Garden Arena. These are just a few examples."

CHALLENGES: OVERCOME AND ONGOING

The Blazers decided early on that tracking was essential to their greening program. This decision led to two important investments: first, hiring the Green Building Services consulting team, and second, undertaking an extensive sustainability and carbon footprint analysis (see the above graph for the breakdown of the Blazers' carbon impacts).

Zeulner says that the time and money his team invested in the up-front measuring was quickly returned in resource savings as he was able to more easily identify the "low-hanging fruit." "These assessments and footprint analysis provided a road map for us to implement strategies toward maximizing our environmental performance," says Zeulner. "We started with easy wins that had paybacks of less than a few years, such as energy efficiency projects, implementation of advanced recycling and food waste composting operations, and implementation of environmental purchasing policies. These initial efforts have resulted in hundreds of thousands of dollars of operational savings, with payback met after just about a year."

By starting with the green projects with the greatest return on investment, the Blazers were able to gain momentum to pursue larger initiatives, like LEED certification. "While these projects and procedures were implemented, we made the decision to seek LEED certification for existing buildings through the U.S. Green Building Council," says

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Zeulner. "Implementation of our sustainability initiatives, including LEED, included in-depth meetings with all facility departments, contracted service providers, vendors and suppliers (this includes waste haulers, contractors, etc.). During the meetings, we clearly set expectations, provided context and review of our environmental policies and programs, included training about these topics and developed metrics that would be tracked for all areas to ensure compliance."

The Blazers sought out additional outside guidance for their LEED process as well. These outside partnerships provided Zeulner's team with expertise on specific topics, such as onsite solar (NRDC) and carbon offsets (Bonneville Environmental Foundation). "Successful development of extensive sustainability programs requires partnerships with public and private enterprises. We sought out advice and leadership from organizations grounded in environmental values such as the NRDC, the U.S. Green Building Council, Cascadia, the Living Future Institute, the Bonneville Environmental Foundation and the EPA," says Zeulner. "These organizations provide unique perspectives pertaining to implementation of best practices and context to more complex issues, such as procurement policies. Our success in reducing environmental impacts would have been more challenging without the support of these partners."

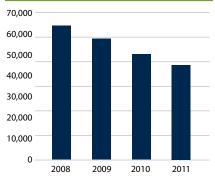
Financing efficiency upgrades and other green initiatives is a constant hurdle, but Zeulner points out that the upfront capital to fund environmental programs can come from a variety of sources. "In addition to internal capital resources, we applied for and received local and federal grant funding," he says. "Grants included financial resources to help implement energy-efficiency projects, recycling and food waste compost programs, installation of electric-vehicle charging stations and bike infrastructure endeavors. As of the end of the 2011 calendar year, we have saved close to \$1 million while investing about \$500,000, in less than three years."

The Blazers were awarded LEED Gold certification, the highest level of LEED certification awarded to any major sports venue to date, in January 2010. Despite this impressive accomplishment, the Blazers still push for ongoing savings across the board (see adjacent graphs of the Blazers' resource savings). Zeulner explains: "We were bestowed with Gold during the first part of 2010. This was a significant milestone for us, but we quickly continued to keep our momentum. We implemented further deep building retrofits; invested further in bike and electric-vehicle infrastructure; developed partnerships with local environmental nonprofits to advance their mission; invested in offsetting 100 percent of our energy, gas and water consumption impacts; joined Business for Innovative Climate & Energy Policy; and helped found the Green Sports Alliance to share best practices within our industry and further the impacts that leveraging professional sports can have on larger global initiatives."

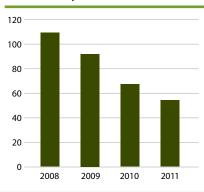
The Blazers have been able to use their greening work to strengthen their community presence and benefit the local economy by building for the future. "We are now assessing projects that go beyond the four walls of our arena and attempting to inspire growth toward development of Eco-Districts," says Zeulner. "This includes looking at things like district energy, shared water management systems, harvesting rainwater, developing gray-water reuse strategies, investing in district-scale food waste-to-energy systems, furthering renewable energy, reducing transportationrelated impacts to our region and other projects related to maximizing environmental enhancements."

So far the Portland public has been very receptive to the Blazers' efforts and continue to support the team's expanding

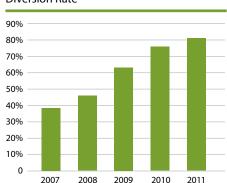




Water Savings Per Game-Day Event CCF/Event Day



Waste Diversion Per Game-Day Event Diversion Rate



"FUNDING ENVIRONMENTAL PROGRAMS CAN COME FROM VARIOUS SOURCES. IN ADDITION TO INTERNAL CAPITAL RESOURCES, WE APPLIED FOR AND RECEIVED LOCAL AND FEDERAL GRANT FUNDING," says Zeulner. "AS OF THE END OF THE 2011 CALENDAR YEAR, WE HAVE SAVED CLOSE TO \$1 MILLION WHILE INVESTING ABOUT \$500,000. IN LESS THAN THREE YEARS."

greening program. "Our efforts have only received positive feedback, including thousands of positive media articles, local achievement awards and immense fan applause," observes Zeulner. "The operational savings alone have proved these efforts worthwhile, but beyond the business case, we have supported larger community goals, supported brand development, enhanced the fan experience and made significant connections."

STANDOUT GREENING ACCOMPLISHMENTS

- ★ Recycling: More than 80 percent of operations waste is diverted from local landfills. Recycling stations for visitors and a food waste composting program with vendors divert about 1,000 tons annually. 100 percent of food waste is composted.
- ★ Transportation: More than 30 percent of Rose Garden attendees use public transportation or alternatives such as bicycle commuting. The team subsidizes transit passes for staff and uses bikes and electric vehicles for onsite operations. 43 percent of Rose Garden staff use alternative transportation.
- ★ Energy, Gas and Water: In addition to upgrading to energy efficient lighting and low-flow plumbing fixtures, the Trail Blazers partnered with Pacific Power and the Bonneville Environmental Foundation for the purchase of 100 percent renewable energy programs and Water Restoration Certificates for the Rose Garden. The Blazers cut water use by 17 percent.
- ★ Purchasing: The Trail Blazers developed partnerships with suppliers for sustainable purchasing, including more than 95 percent compostable food and beverage serving containers and materials, 100 percent recycled content trash liners, reusable commodities that replace disposables where feasible, green-certified chemicals and equipment, and sustainable food and beverage alternatives for fans.

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LESSONS FROM THE FIELD

GREENING, INCLUDING LEED CERTIFICATION, CAN BE AN INVESTMENT THAT PAYS OFF: While the up-front investment in major greening upgrades is significant, the payoff is greater. The Blazers invested \$560,000 in operations improvements around the Rose Garden. By 2011 the team had recouped \$411,000 in energy savings, \$165,000 in water savings and \$260,000 in waste diversion savings, with a total savings of \$836,000. "As of the end of the 2011 calendar year, we have saved close to \$1 million while investing about \$500,000, in less than three years," says Zeulner. "We forecast that our savings will reach over \$1 million by the end of 2012."

DEVELOP AN ORGANIZATION-WIDE GREENING CHARTER TO GUIDE YOUR EFFORTS: Once the Blazers had executive buy-in and a sustainability team assembled, they developed a sustainability charter to better frame the environmental mission statement that would guide their sustainability efforts. "Establishing a charter, our driving document that serves as a sustainability road map, led to the U.S. Green Building Council assignment of LEED Gold certification for the Rose Garden arena in 2010, the first and only existing building in professional sports worldwide to achieve this designation," says Zeulner. The charter included the Blazers' sustainability mission statement, which helped the team plan out and prioritize their green initiatives.

SET PROGRESSIVE GOALS: Zeulner advocates setting progressive goals to spur your green program to higher levels. The Blazers set a goal of carbon neutrality, which requires that they offset more carbon than they produce at the Rose Garden (evaluated using a Scope 3 carbon assessment with the 2007–2008 base year). The Blazers aimed for the highest level of LEED certification to date and achieved it with the guidance of their outside consultants and partners. The Blazers also established a corporate sustainability initiative to incorporate environmental considerations into all internal decisions.

REMEMBER TO CONSIDER IMPROVEMENTS TO EMPLOYEE AND PATRON HEALTH VIA GREENING: Thanks

to the LEED certification process, the Blazers significantly improved indoor environmental quality at the Rose Garden. They did this by implementing an internal air quality plan, banning smoking, ensuring all ventilation and filter systems met ASHRAE standards, promoting occupant comfort by providing lighting controls and thermal comfort, and using 54 percent green cleaning products and 73 percent green cleaning equipment to improve indoor air quality.