



QUARTERLY

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When Green Certification Systems Compete, Everyone Wins

By Robert Willis, Project Executive & Director of Sustainable Engineering

For sustainable design and construction, USGBC's LEED certification has been the dominant rating system for a number of years. LEED has gone through various iterations but remains synonymous with green building. There is no question that when someone mentions LEED it is immediately recognized and accepted as the de facto standard for sustainable design and energy efficient construction. The US Green Building Council must be given credit for helping move sustainable design and construction forward. There are literally thousands of projects currently registered and making their way through the LEED certification program.

Are you aware that there are alternatives to the LEED rating system? There are many different rating systems available, each uniquely tailored to the geo-political importances of their specific area or region. For example, Australia, where water is scarce, identifies water conservation as a major priority and therefore weighs innovative water solutions much more heavily than energy usage, as opposed to what we do in the United States.

Some alternate certification programs you may already be familiar with are BREEAM (BRE Environmental Assessment Method), Minnesota Sustainable Building Guidelines, SBTool, and Green Globes. BREEAM started out in the UK and expanded into Canada. The Green Building Initiative implements the program in the U.S. under the name Green Globes. SBTool is employed by the iiSBE (International Initiative for a Sustainable Built Environment), an international non-profit organization with board members and chapters all over the world.

It is important to have these varied ratings systems available. There is no perfect system that fits every building scenario. Competition amongst the various programs

spurs innovations, upgrades, and efficiencies, benefitting everyone and the environment. This article will concentrate on the similarities and differences between Green Globes and LEED.

Both LEED and Green Globes are web-based programs. When a building owner chooses to certify a project, an application is submitted and the project is online ready for all the forms to be completed. Following this step the two programs begin to vary in many ways.

LEED has many requirements that must be satisfied in order to qualify for its program. First, it is a virtual requirement that a LEED Accredited Professional (LEED AP) be involved. Next the current version of LEED has nine pre-requisites which must be met. If any single pre-requisite is not met, the project cannot qualify for LEED certification. Credits are given on a point-by-point basis with quantity of points as the criteria for the different levels of achievement: Certified, Silver, Gold, and Platinum. A maximum of 114 points are available. According to the USGBC's most recent published data, approximately 10% of the projects that begin the LEED certification process actually follow through to completion. With Green Globes, any individual can lead


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Visit PSF at Booth 106 at the WCEMC June 15-16, 2010!

PSF will exhibit at the West Coast Energy Management Congress being held at the Washington State Convention & Trade Center. Go to EnergyEvent.com for more details.

The West Coast Energy Management Congress (EMC) is the largest energy conference and technology expo held on the U.S. West Coast specifically for business, industrial and

CURRENT PROJECTS

- Bella Botega MOB
Redmond, WA
New Construction, Shell & Core
HVAC, Piping & Plumbing
- Continental Mills TI
Tukwila, WA
TI in New Building
HVAC, Piping & Plumbing
- Snohomish County ESPC 
Everett, WA
Energy Savings Performance Contract
- Nordstrom Santa Monica Place
Santa Monica, CA
New Construction
HVAC
- Nordstrom Rack at Union Square
New York, New York
Remodel of Existing Building
HVAC, Piping & Plumbing
- Nordstrom Rack at Brentwood Square
St. Louis, MO
Remodel of Existing Building
HVAC, Piping & Plumbing

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institutional energy users. It brings together the top experts in all areas of the field to help you set a clear, optimum path to both energy cost control and energy supply security.





PSF Team:

Dana Hannan - Account Executive; Andrea Hovey - PM;
 Ron Marson & Randy Stabnow - Engineer;
 David Fowler - Lead Piping Foreman;
 Vaughn White - Sheetmetal Foreman

Fleet Region Readiness Center

- 20,000 ft² 2-story Training Center
- Naval Station Everett, WA
- Certified LEED® Gold - pending 

Team Members:

- Owner - United States Navy
- GC - JKT & PCL, a Joint Tribal Venture (Section 8A)
- Architect - Michael Baker, Jr., Inc.
- HVAC - PSF Mechanical, Inc.

Energy Saving & Green Strategies:

- Low flow plumbing fixtures were used for all sinks, faucets, urinals and lavatories throughout the facility reduced water consumption by 41.9% over baseline
- Demand-based ventilation system
- Minimized contribution to greenhouse gases by using smallest amounts of CFC-free refrigerant possible
- MERV 8 filters were used during construction to protect the ventilation system from contaminants



PSF Team:

Robert Willis - Account Executive; Andrea Hovey - PM;
 Tim Timmerman - Foreman

Highline “Matt Griffin” YMCA

- 52,208 ft² Community and Youth Development Center
- SeaTac, WA
- Awarded LEED® Gold 

Team Members:

- Owner - YMCA of Greater Seattle
- GC - GLY Construction
- Architects - Lance Mueller & Associates
- HVAC - PSF Mechanical, Inc.

HVAC Systems:

- Fourteen packaged rooftop Trane gas/electric units serve family, lifestyle, youth development, community kitchen, pinnacle climbing wall and gymnasium areas
- Two custom Aaon heat recovery units serve the locker and shower areas
- One custom Energy Labs heat recovery unit serves the aquatic center
- One Mitsubishi mini-split unit for file server room

*“PSF Highline YMCA team was a pleasure to work with. Responsible, creative, proactive to all aspects of the project.”
 -Craig Wallace, GLY Construction, Inc.*



PSF Team:

Jim Reynolds - Account Executive; Mark Templeton - PM;
 Mike Butenschoen - Foreman

Nintendo 4900 Material Lab

- 6,655 ft² Material and Chemistry Lab (product test) in an existing 120,000 ft² Office Building
- Redmond, WA

Team Members:

- Owner - Nintendo of America
- GC - GLY Construction, Inc.
- HVAC - PSF Mechanical, Inc.

HVAC Systems:

- 100% OSA constant volume terminal reheat system for instrument and wet (product test) labs
- Dedicated mechanical cooling for mechanical test lab (environmental test chamber, drop test and shaker table), shaker table exhaust
- Fume exhaust for lab hoods
- Indirect exhaust for gas chromatograph mass spectrometer
- Revise existing HVAC systems for new machine shop, offices, instrument rooms and storage areas

Integrated Project Delivery Part 2: Controlling Risk & Exposure

By Jim Reynolds, President

The entire construction industry has been portrayed as lacking in innovation and creativity when compared to many other industries: no new ideas, still doing things the same old way, rooted in the past.

Those of us involved in the construction industry probably don't believe this statement is true, but may agree wholeheartedly that there is plenty of room for improvement. Much of the perceived shortcoming comes about because of a lack of trust. Owners hire design firms to protect themselves from "predatory" contractors, and contractors act aggressively to protect themselves from incomplete or incorrect documentation. And so projects continue down the well worn and rutted road of competitive plan/spec and bid projects...

The top concerns for most owners:

- Unpredictable schedules
- Cost escalation
- Quality
- Scope
- Risk

The traditional plan/spec model does nothing to alleviate these concerns. In general, over the last thirty-five years I have witnessed a loss of quality in the documents used for bidding purposes, this only exacerbates the issue.

How do we produce quickly, cost effectively and with minimum waste?

How do we ensure projects are completed on time?

How do we deliver complete projects, on budget?

How do we ensure the building itself is efficient and useful for its purpose?

Integrated Project Delivery, or IPD, offers the opportunity to take advantage of the latest technology, applied in a cooperative team environment to improve the quality, efficiency and total life-cost of projects, ensuring they meet the owner's objectives. IPD provides a vehicle to achieve the above challenges in a team

environment that is established at the very beginning stages of the project.

Having the entire team concentrate on and understand what the customer needs, rather than just the construction activities, allows a high-altitude perspective. Unlocking the knowledge and experience of the construction contractors during the design process, not after, is what makes the IPD process so inviting and so successful. Those who have benefitted from the design/build process stand to gain more by implementing the IPD model. Together the team can focus on the use of the building as opposed to just the cost of construction. Once this perspective is realized, the team can look beyond the 10 to 15% of the building's lifetime costs that the construction activities represent and instead concentrate on delivering the best total life-cost value.

PSF EMPLOYEE SPOTLIGHT

Dan Hering, Business Development Manager, Energy Services

Dan joined PSF in June 2009 to expand PSF's capabilities in the Energy Services arena. He came to us with 25 years of service in a variety of sales and operations positions primarily in integrated building technologies. In his notable career he has completed many high-profile Energy Savings Performance Contract (ESPC) projects including St. Joseph's Regional Medical Center; the State of Alaska, DOT & DOC; and SeaTac Airport.

Dan reports he came to PSF for some very specific reasons: He has a passion for discovering problems and creating solutions for customers; he likes the altruistic nature of helping people become energy efficient and helping them do more with less; he was

attracted to the value he saw that exists "under one roof" at PSF, namely the years of experience, the level of expertise of its staff, and PSF's ability to both design and build. He also has a great appreciation for PSF's company culture and feels this is a result of the fact that it is privately owned and is a place where "words and honor still mean something".

Dan is an avid golfer and loves to read. But most of his energy, outside of work, goes to his family. He has a fabulous partner in his wife, Char, and he supports their two sons - and kids in general - through his involvement in school athletics.



PSF Industries & PSF Mechanical do the "Big Climb"

On March 21st, four employees of PSF Mechanical joined Team PSF Industries and "took the challenge". They were Kaisha Spicer, Jill Hughart, Andrea Hovey and Talo Balderrama. The Big Climb is the Leukemia & Lymphoma Society (LLS) Washington/Alaska Chapter's largest fundraiser. Participants climb 69 flights of stairs to the top floor of the Columbia Center tower in Downtown Seattle to raise funds to find a cure for leukemia, lymphoma, Hodgkin's disease, and myeloma and to improve the quality of life for patients and their families.



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the process; there are no special training requirements to implement the program. Secondly, there are no prerequisites. Green Globes gives credits on a percentage basis with quantity of points as the criteria for the various levels of achievement: One, Two, Three, or Four Globes. A maximum of 1,000 points are available.

This is a stark contrast between the two systems. One excludes on the basis of certain priorities while the other embraces all opportunities to improve the sustainability of any project.

During the design and construction of any project there is interaction between the project team and the certification entity of the rating system in use. Again there are differences between LEED and Green Globes in this regard.

LEED handles all correspondence online via form submittals, review comments, and CIRs (Credit Interpretation Requests). The LEED rating review system is set up to take place after the fact and verifies all credits via the web. Reports are generated and submitted back to the project team. If there is a disagreement the project team has the option of submitting an appeal for a fee. This can go back and forth numerous times, and does on occasion.

Green Globes assigns an assessor to the project. Conversations and exchange of information between the project team and the assessor are encouraged. At each of the design phases the assessor reviews the documents, provides suggestions, answers questions and works as a collaborative team member.

To verify credits applied for, Green Globes sends the assessor to the site for a visit. Already familiar with the project and its intended goals, the assessor meets with the design and construction team and walks the project to verify that all credits submitted are part of the finished design. If there is a disagreement it is worked out on the spot.

Cost is always an issue in construction and it is no different when it comes to sustainable construction rating systems. Each system charges a fee for registration and a fee for verification. LEED charges \$900 to register a project. For a 250,000 sq. ft. building LEED charges an additional \$11,250 fee for verification. The cost for a LEED AP to run the process is approximately \$25,000.

Green Globes charges \$500 for registration and typically costs around \$6,500 for the assessor site visit and project certification.

I have used the LEED rating system on eight projects and Green Globes on two. One of these was dual-certified using both Green Globes and LEED. This became a perfect case study for the comparison of the two rating systems.

The project is a high rise of approximately 500,000 sq. ft. in a major metropolitan area. The dual certification process confirmed how similar Green Globes and LEED are. Each system includes categories for Site, Energy, Water, Resources, Emissions/Effluents, and Indoor Environment. LEED has additional credits for innovations, while Green Globes offers credits for collaborative project management. Using the same design and construction information the

building received a LEED Gold rating and Three of Four Green Globes.

The differences between the systems did not reveal themselves until we neared the final scorecards. With LEED certification, the process begins with the selection of the points to be pursued and then working toward those goals. What is unknown is which and how many of the credits will be either challenged or denied during the review period, so total count and rating is never a sure thing. Some points are easy to assure, while others are subject to interpretation. The standard operating procedure is to identify more costly credits that would be initiated if other credits were rejected because one or two credit points can mean the difference between Gold and Silver, or between certification and non-certification.

With Green Globes there are three questionnaires, one each for Pre-Design, Schematic Design, and Construction Documents. At each stage the questionnaire tracks the project score based upon the design concepts that were retained and/or added during each phase. Since the scoring for Green Globes is a percentage of points available, the certainty of the final rating is much higher with this system. Again, the assessor is apprised of progress and reviews the project at these stages.

So there you have it. Two systems of similar yet differing approaches to building green. Each has its place in the green building movement. Each verifies, in its own way, that a project has taken on the accountability of its intentions to produce an energy efficient, sustainable building with an excellent indoor environment for the occupants.

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