

## Madison Green Building Resolution Fact Sheet

### Why Green Building?

Buildings represent one of the largest potential sources of energy savings in Wisconsin. Nationally, the built environment accounts for roughly 40% of all energy consumption and 71% of electric power use. US Department of Energy estimates that incorporating efficient design into new buildings can cut heating and cooling costs by close to 50%.

### What does the Resolution do?

It would require any new or substantially renovated City owned buildings to be certified as a green building at the silver level under the LEED (Leadership in Energy and Environmental Design) standard. A silver level provides significant energy benefits at a reasonable cost.

### Why are Standards Important?

A standard is a recognized unit of comparison. A green building can be designed and built without getting it certified. However, without an evaluation by a third party, it is impossible to tell whether the building will achieve the intended level of environmental performance and hence, return on investment. A third-party audit to show that the building has in fact incorporated the claimed green features is important for the same reason that corporations use financial audits to prove that their profits are real.

Standards are important because:

- They prescribe the accepted and best criteria for a product, process, test, or procedure. The general benefits of a standard are quality, interchangeability, and consistency.
- Standards act as a 'benchmark'. Without standards no one can be sure how we are operating in terms of compliance or measurement. Standards allow us to compare and exchange data with other parties who use the same inputs and outputs.
- Standards help to ensure that products and services live up to our expectations. Without accountability, a product may or may not be designed properly or consistently.

### Why do third party evaluations?

There are many good intentions in the design of buildings that do not appear in the finished design. This can occur as a result of changes in the field, mistakes, or inattention to detail. Without third-party validation, the owner, who assumes he/she is getting what was originally intended, may never know the cumulative result of the changes.

Madison cannot certify its own buildings to a green building standard. This would impose an added cost, a need for more staff, and jeopardize the performance and environmental savings achieved through certification. Also, Madison will not be able to claim with any credibility that it has green buildings if the buildings are not third party certified and will not be able to compare its buildings with those of other cities.

### Why the LEED standard?

LEED is the accepted standard in the US market already comprising 1.5 billion square feet and \$12 billion in real estate. LEED is an **evolving, consensus-based system** of the more than 12,000 member organizations of the nonprofit US Green Building Council. It requires independent, **third party certification**.

Government has adopted LEED for its own projects at the federal, state (26) and local level. More than 115 municipalities have green building policies of which 74 require LEED

certification. Government LEED space includes 2,500 certified and registered projects or over 425 million square feet.

### ***What are the Costs and Benefits of LEED Buildings?***

Buildings costs to the owner are 20% first costs (design and construction) and 80% operation and maintenance over a 35 year life. **A 35% savings in energy costs on an annual basis pays for any slight increase in first costs related to LEED certification within a year. After that, the savings accrue to the taxpayer!**

### **LEED Buildings save 30% or more on Energy**

The New Buildings Institute just completed a study of the energy performance of 125 LEED certified buildings that have been operating for at least one year compared with the national building stock. They found that LEED certified buildings use on average 30% less energy. LEED buildings in Wisconsin's climate zone come in 45% below code on average energy use. Overall, LEED certified buildings at the certified level perform 25% better than energy code; LEED silver buildings are 35% better and LEED gold and platinum buildings 45% better than code on energy.

***The first costs of certifying to LEED in WI are negligible.*** Harley Davidson achieved LEED certification in 2002 at a cost of \$0.06 per square foot or 0.5% of the construction budget. A LEED Gold high school in Eagle River was built at a total cost of \$116 per square foot, 23% below the national median cost for high schools. WECC built a LEED Gold building for the same cost as the average WI office building even with significant renewable energy systems.

According to a 2007 study by Davis Langdon of 221 LEED vs. traditional buildings, **"There is no significant difference in average costs for green buildings as compared to non-green buildings.** We have also found that, in many areas of the country, the contracting community has embraced sustainable design, and no longer sees sustainable design requirements as additional burdens to be priced in their bids."

**The infrastructure costs to taxpayers--sewer, water, waste management, and public health decrease with LEED certified buildings.** In addition to energy, LEED buildings reduce average water use by 40%, waste by 65% and harmful greenhouse gas emissions by 30%. And they are healthy for those living and working in them. The city will benefit from improved employee attraction, retention and reduced health care costs.

### **Implementation is Seamless and Requires No Extra Staff**

Nationally trained third party certifiers review the documentation of green building design, construction and performance. And, professionals nationwide upgrade the standard. Currently in WI there are 138 LEED certified and registered projects (17 in Madison). **The design, engineering and construction industry is trained in LEED and able to deliver high quality LEED certified buildings** in WI. There are 42,000+ LEED Accredited Professionals nationwide.

### ***Conclusion***

Madison can help mitigate the huge negative impacts buildings have on the environment and community health locally and globally and to save money by doing so. LEED is a proven tool to accomplish and measure that. The industry is already moving beyond basic LEED certification with zero net impact buildings and regenerative buildings. There is everything to gain and nothing to lose in certifying City buildings to LEED. Achieving LEED certification for city buildings is a key element of becoming a leading Green Capital City.