



HOW DOES THE BUILDING ENERGY QUOTIENT PROGRAM COMPARE WITH OTHER BUILDING ASSESSMENT PROGRAMS?

“Information on a building’s energy use is the critical first step in making the necessary choices and changes.”

Ensuring that the right information gets into the hands of the people that need it is key. While programs like Energy Star and LEED have advanced the market for sustainable buildings, a different type of information is needed to engage the public, building owners and tenants, and potential owners and tenants in achieving energy goals. The Building Energy Quotient Program is designed to meet the needs of these diverse groups.

Energy Star provides building owners with a tool for monitoring their energy consumption and recognizes the top 25 percent of buildings. Because its scale is based on a comparison with CBECS data for existing commercial building stock, there is no easy way to recognize buildings that reach towards extremely low energy use, and ultimately net-zero energy use. The Building EQ program provides an easily understood scale to convey a building’s energy use to the public. Building EQ also will offer information to building owners and operators beyond that currently provided by Energy Star. Through an on-site assessment, the building owner is provided with building specific information that can be used to improve their building. Documentation on previous energy efficiency upgrades and commissioned systems will be included. With procedures for both an asset and operational rating, building owners can make side by side comparisons which could further reconcile differences between designed and measured energy use.

The recently announced Memorandum of Understanding between the Department of Energy and the Environmental Protection Agency on the future of the Energy Star program and the creation of a National Building Rating Program at DOE is recognition of the importance of a Building EQ type label that provides both asset and operational ratings. As DOE develops the National Building Rating Program, ASHRAE will provide its technical expertise and the experience from the Building EQ program as input. The Building EQ program will be submitted to DOE as a method for rating a building’s energy use.

The U.S. Green Building Council’s LEED program provides criteria for multiple characteristics of a green building—including energy. While the program has advanced the market for green buildings, some owners have a specific interest in reducing energy use. The Building EQ focuses specifically on the energy use of a building. Additionally, Building EQ allows a straight-forward, single-characteristic comparison across peer buildings without the need to understand multiple characteristics that



combine in different manners to produce the same rating. With its single attribute focus, obtaining the Building EQ label will be more accessible for many building owners.

The LEED system has often been criticized for the perceived disconnect between the design intent and actual performance of buildings that receive a LEED rating. This concern is not limited to the LEED program (although it has been the most visible manifestation) and has become a growing concern of building scientists and engineers. The Building EQ program partly came about to examine this concern and improve the understanding of this disconnect. The USGBC also is taking efforts to identify and improve this disconnect. In late 2009, USGBC launched the Building Performance Initiative (BPI) to explore how to improve the performance of LEED buildings relative to their design. Now only in its conceptual phase, it is envisioned that USGBC will provide an ongoing assessment of LEED buildings based on all the characteristics that make up green buildings. As part of this assessment, the 2009 version of LEED requires submitters to provide access to energy and water use data. The BPI is only targeted at those buildings with LEED ratings and will make use of existing programs and tools where possible. A program like the Building EQ program could be incorporated into LEED under the BPI.

While not a labeling or rating program, COMNET (Commercial Energy Services Network) is developing tools and criteria useful for the consistent design and performance of building assessments. This includes development of a standardized set of parameters for inclusion in energy models. This will allow for greater consistency between models and allow easier comparisons. As COMNET develops its criteria and tools, ASHRAE will consider them for inclusion within the Building EQ program.

Targeting the Information

The label itself will be the most visible aspect of the program. It will be simple to understand and targeted at the general public. It could be used for posting in a building lobby and could satisfy compliance with many of the programs being developed at the state and local level requiring display of energy use.

The certificate will contain additional information of a technical nature that will explain the score on the label and provide information useful to the building owner, prospective owners and tenants, and operations and maintenance personnel. This includes much of the value added features described above.

The documentation accompanying the label and certificate will provide the background information useful for engineers, architects, and technically savvy building owners or prospective owners in determining the current state of the building and opportunities for improving its energy use.