

ASHRAE's Building Energy Quotient Rating System



Objectives of the Program

- Promote the value of energy efficiency in the real estate market
- Enhance ability to identify energy efficiency measures to help improve operations
- Drive buildings towards Net Zero Energy
- Provide clear communication to the public
- Ensure widespread use



What is Building EQ?

Building energy rating system that seeks to differentiate the performance of buildings and clearly identify high performers

Energy Quotient (EQ) = Intelligence Quotient (IQ)



Why Do We Need This?

Need to understand a building's energy performance relative to its peers

Automobile	Miles/gallon
Building	Btu/square foot



How Does Building EQ Work?

- **In Operation Rating**
 - Operational rating based on actual utility bills
 - Minimum period of one year's worth of data
 - Applies to existing buildings
- **As Designed Rating**
 - Rating that evaluates the value of the “asset”
 - Indicates how a building should perform
 - Based on simulations



Key Features of Building EQ

- Ability to display **In Operation** and **As Designed** ratings on same label
- Helps to understand why expected and actual performance don't match
- Operational and Energy Design features of the building identified
- Energy use summarized using multiple metrics
- Greater differentiation for high performers



Building EQ Information Provided

- **Label**
 - Visible label designed for general public
 - Differentiates building rates in multiple ways
- **Certificate**
 - Technical information explaining score on label
 - Information for operators/owners/managers
 - Value added features
- **Documentation**
 - Background technical information for engineers and architects



A-
AS DESIGNED



BUILDING ENERGY QUOTIENT™

The Building Energy Quotient™ indicates how much energy this building uses per square foot. The letter rating indicates how this building compares to a typical building and how close the building is to its technical potential—the closer to net-zero energy or A+, the better.

As Designed: Indicates the estimated energy consumption of this building as designed.
In Operation: Indicates the energy consumption of this building in actual use.

Date of Issue:
As Designed Date:
In Operation Date:

June 15, 2009
June 1, 2009

Building Location:
1791 Tullie Circle NE
Atlanta, GA 30329 USA

Comparison to Other Ratings

- Energy Star
 - Recognizes reaching the top 25% of buildings
 - Rating scale results in less differentiation at higher levels of performance
 - Public recognition is pass/fail
 - Building types limited
- LEED Rating
 - Multi-characteristic program for green buildings
 - Energy information not necessarily comparable across buildings with same rating
 - Operation and asset ratings decoupled



Why ASHRAE?

- Over 100 years of experience in the building sciences
- Strong technical expertise across all aspects of building design and operation
- Historic focus on developing consensus-based, non-commercial documents
- Respect and credibility within the building community



ASHRAE's New Program



ASHRAE Building Energy Quotient Program
Advanced Building Energy Labeling

<http://buildingeq.com/>

