



## Industry cooperation produces the BEST results

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Tackling big industry issues can be difficult – but not impossible. For a long time the HVACR industry has struggled with the issue of being able to accurately compare different styles of HVAC equipment, which are all tested to different standards, with various rating systems (EER, IEER, SEER, etc.). The issue is made even more difficult when, as a building owner or designer, you need to try and figure out how well each system is going to work and what it will cost over its life when installed in your actual building – before it's even built!

So, what type of system should I install in my building? The most efficient, the cheapest, the most comfortable, or maybe the most dependable? This question is answered differently, depending more on who's asked rather than based on data. How does one know and become informed on the choices, especially when they might not be experienced in HVAC design or even understand the industry jargon?

A solution was developed by a diverse group of commercial manufacturers from the United States, Mexico, and Canada when they came together as part of the Hydronic Industry Alliance – Commercial (HIA-C), a committee of the Radiant Professionals Alliance (RPA), and took on the challenge of delivering a total commercial building HVAC system efficiency comparison tool. The free, interactive Building Efficiency System Tool™ (BEST) is now available on the HIA-C website at [www.HIA-C.org](http://www.HIA-C.org).

The BEST software was created to better inform prospective builders, consulting engineers, and design build professionals about their selection options for HVAC systems during the early design process. BEST is quick and easy, and in case you missed it, I did say FREE. Free because the industry recognized the importance of this issue, and the need to have high-performance HVAC systems installed in the commercial building stock. That starts with being able to make an informed comparison between system options.

Simplicity is at the core of the BEST software.

Just enter the square footage of the building, number of stories, and the nearest city for local weather data. Then up to four types of HVAC systems can be compared – selected from more than 30 pre-loaded system types. BEST quickly outputs estimated installation cost, replacement cost, maintenance cost, monthly energy cost, electrical and fossil fuel consumption costs, and total life cycle cost. It also outputs cumulative life cycle cost by year, system payback time, pump and fan HP, system integrated energy efficiency ratio (IEER) for cooling and coefficient of performance (COP) for heating, and more.

The cost data is based on industry averages for first cost and maintenance costs collected from over 50 contractors around the U.S. The BEST tool features Building Energy Efficiency Rating (BEER) system curves, which takes certified AHRI data, manufacturers' published performance data, multiple performance points, as-applied correction factors, performance curves for components, and pipe required in a typical system, and combines them to bridge the gap between certified equipment efficiencies and real-world building system efficiencies.

This view into the system efficiency "as-applied" in a building, versus component efficiency tested in a lab, is what sets the BEST tool apart. AHRI publishes equipment efficiencies only at the conditions specified in the specific rating standard for that particular type of equipment. These ratings are not efficiencies for a system once installed, nor are they designed to make an apples-to-apples comparison between different types of equipment.

This game-changing, first of its kind software provides the information owners and designers need to be able to properly evaluate the myriad of options available to heat and cool their buildings. They now have real cost data, energy efficiency comparisons and life cycle costs of the HVAC system even before detailed plans are created. Download the BEST software today and start to use it as part of your sales and owner education efforts. It's one of the BEST things this industry has ever done!

Hydronics Industry  
**Alliance**