

## LEED® and Radiant Heating Systems

The effective use of Radiant Heating Systems (RHS) can provide the basics for attaining up to 12 LEED® points under the following USBGC rating system for New Construction & Major Renovations:

### INDOOR ENVIRONMENTAL QUALITY

- **EQ Credit 6.2**
- **EQ Credit 7.1**
- **EQ Credit 7.2**

In order to receive LEED® credit under the Indoor Environment Quality sections, first complete *BOTH* of the prerequisites:

- **EQ Prerequisite 1:** Minimum IAQ Performance under ASHRAE 62.1-2004 sections 4 through 7.
- **EQ Prerequisite 2:** Environmental Tobacco Smoke (ETS) Control, that has two options that effectively prohibits and/or severely restricts smoking in the building.
- **EQ Credit 6.2:** Controllability of Systems: **Thermal Comfort (1 Point)**
- Inherent design capabilities and necessities of RHS meet the INTENT & REQUIREMENTS with zoning of the system.
- **EQ Credit 7.1: Thermal Comfort Design (1 Point)**
- RHS designers and engineers have ascertained the resultant environment approach is the *IDEAL* Heating Curve (see graph). As such these systems meet the credit's INTENT & REQUIREMENTS
- **EQ Credit 7.2: Thermal Comfort Verification (1 Point)**
- RHS can contribute towards a project obtaining this point. *HOWEVER*, the attainment under this provision cannot be secured by the system itself but actually requires the cooperation and assistance of the owner/occupant of the building in order to meet BOTH the INTENT & REQUIREMENTS

### ENERGY AND ATMOSPHERE

In order to receive LEED credit under the Energy & Atmosphere section, first each of the three prerequisites:

- **EA Prerequisite 1:** Fundamental Commissioning of the Building Energy Systems
- **EA Prerequisite 2:** Minimum Energy Performance
- **EA Prerequisite 3:** Fundamental Refrigerant Management
- **EA Credit 1: Optimize Energy Performance (1-10 Points)**
- Similarly to EQ 7.2, RHS will be able to provide the impetus for but will require the combined efforts of the design team (including architect, systems designer, and HVAC consultant engineers) to establish the most effective system design for minimizing energy consumption;

INTENT & REQUIREMENT-one of the three compliance path options:

- **OPTION 1** – Whole Building Energy Simulation (1-10 points)
- **OPTION 2** – Prescriptive Compliance Path (4 points)
- **OPTION 3** – Prescriptive Compliance Path (1 point)

Radiant Heating Systems may contribute towards a project obtaining LEED certification for a number of different rating systems; i.e. LEED for Homes, Schools, etc.