



Judging Criteria

General

If any of the scoring topics (listed below) are not applicable to the project, the entrant should state why. In such cases, judges are instructed to assign a "plug" score on the non-applicable topics so that the overall project score is on an equivalent basis with other entries.

Energy Efficiency (15 points)

This is a major criterion. Entries, where applicable, must comply with the latest ASHRAE Standard 90.1 for new construction and Standard 100 series for existing buildings. The applicant is encouraged to use the computer modeling programs in Standard 90.1 and include summarized results to substantiate compliance. The entrant should list the type of energy modeling software used (i.e. DOE2, EQuest, etc.) Innovative ways to control, reuse or reduce energy consumption should be discussed. The entrant should specifically list the version of ASHRAE Standard 90.1 or ASHRAE Standard 100 that was used.

One year's energy consumption data should be included. Actual measured energy use for the building "In Operation" shall be stipulated in the entry report in CBECS EUI format (kBtu/ft²/yr or S-I equivalent), or in ASHRAE Building Energy Quotient (bEQ) in operation format . In an industrial process, past energy usage may be compared to new, improved energy consumption.

Indoor Air Quality (IAQ) and Thermal Comfort (15 Points)

This is a major criterion. IAQ encompasses indoor environmental quality, thereby including thermal comfort and, if appropriate to the project, other factors as well. Judges are interested in pertinent topics such as operating procedures (where, for example, pre-occupancy ventilation is a significant factor), source control of contaminants, system commissioning and evidence that design objectives have been achieved. Ventilation effectiveness could be an important aspect of the project (e.g., air distribution in auditoriums or with landscape office partitioning).

While carbon dioxide, air velocity and other field measurements are impressive, they are not essential for making an award. Judges realize that such data may not be available and do not want to discourage a worthy entry. Descriptions of means of compliance with ASHRAE Standards 55 and Standard 62 are of value. Merely stating that ventilation and thermal comfort comply with these standards is superficial treatment.

The information should show that the entrant has indeed addressed these standards in the design. For example:

Standard 55

- Assumed activity levels
- Clothing thermal resistance values assumed
- Air velocities measured
- Space air temperatures
- Radiant thermal control
- Humidity/condensation
- Version of Standard Used

Standard 62

- Ventilation rate or IAQ criteria specified
- Ventilation effectiveness assumptions
- Methods of handling special pollutant sources
- Version of Standard used

Innovative approaches assuring good IAQ and thermal comfort in an efficient manner are of interest to judges. Support data or evidence of building performance claims might include:

- The rate of occupant complaints, if any
- Objective measurements of ventilation, air pollution, and thermal comfort parameters (Carbon dioxide levels, measured outside air ventilation rates, pollutant concentrations measured)
- Improvements in human performance such as decreased absenteeism
- Building pressure relationships for odor or IAQ control

Innovation (15 Points)

The innovative aspect of the project design must be clearly described—especially innovative application of technologies (both old and new) to a particular situation. New technology or innovation itself is not sufficient unless the needs of the facility are truly met. The uniqueness of the application is the basis of judgment. It should be indicated, for example, how the innovations are key to overall building performance.

Operation and Maintenance (15 Points)

The intensity of required maintenance for the installed system should be addressed as compared to those non-selected options and/or previous systems. The building commissioning process, if thought to be innovative, shall be included in this category.

Cost Effectiveness (15 Points)

One-year's data demonstrating the performance of the design or process should be provided. Data from prior years should be included if the project is a retrofit situation. Payback periods (in years) should be established. Entrant shall fully explain the basis for all cost savings, including utility rate schedules (off-peak rates and other charges).

Environmental Impact (15 Points)

Design shall address items on reduction of global climate change gases (i.e. carbon dioxide emissions), elimination of CFCs, reduction in waste discharge and other environmentally favorable items, if applicable.

Quality of Presentation (5 Points)

Entries are judged for logical presentation with good features clearly highlighted. Simple-to-read system schematics, charts and graphs are advantageous and are encouraged as the most effective tool in concise presentation of a system and its performance. Points may be deducted for failure to follow type size, spacing and format instructions. Photographs are not encouraged since judges work with black-and-white duplicated copies of all entries. All pages should be numbered.

Judges' Prerogative (5 Points)

Judges may award up to five (5) additional discretionary points.