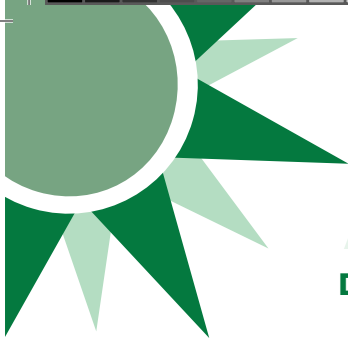




Energy Efficiency





ASHRAE

Developing guidance and standards to promote a greener environment.

ENERGY EFFICIENCY

Whether it's improving the work setting in an office building to increase productivity or providing guidelines for emerging technologies, ASHRAE Research helps engineer the world we live in, creating better indoor and outdoor environments around the globe.

This would not be possible without the individuals and organizations that have chosen to support ASHRAE's vision with their financial contributions. To continue our progress, we need your support as well. To make a donation to ASHRAE Research, please visit www.ashrae.org/contribute.



Energy is a key part of ASHRAE's commitment to sustainability – maximizing the effectiveness and efficiency of resources used while minimizing the impact on the environment. Like all ASHRAE Research projects, those that are undertaken in this area are selected and prioritized to yield the utmost gain in the most crucial areas.

ASHRAE RESEARCH GOALS

- Maximize the actual operational energy performance of buildings and facilities
- Progress toward Advanced Energy Design Guide (AEDG) and cost-effective net zero energy buildings
- Reduce significantly the energy consumption for HVAC&R, water heating and lighting in existing homes
- Support the development of ASHRAE energy standards and reduce the effort required to demonstrate compliance
- Building Information Modeling (BIM) of energy efficient, high performing buildings
- Support development of tools, procedures and methods suitable for designing low-energy buildings
- Support the development of improved HVAC&R components ranging from residential to commercial to provide improved system efficiency, affordability, reliability and safety
- Significantly increase the understanding of energy efficiency, environmental quality and the design of buildings in engineering and architectural education

A FEW CURRENT RESEARCH PROJECTS

- Develop Software to Calculate the Application Seasonal Efficiency of Commercial Space Heating Boiler Systems Based on ASHRAE Standard 155P
- Predicting Occupant Behavior for Low-Energy Office Building Design
- Influence of Blinds and Drapes on Heat Transfer through Building Envelopes
- Development of Reference Building Information Model (BIM) for Thermal Model Compliance Testing
- Assess and Implement Natural and Hybrid Ventilation Models in Whole-Building Energy Simulations
- Research to Support the Revision to Ground Source Heat Pump: Design of Geothermal Systems for Commercial and Institutional Buildings
- CHP Design Guide – Update to the Cogeneration Design Guide
- Development of the ASHRAE Design Guide for Dedicated Outdoor Air Systems
- Demand Controlled Filtration for Clean Rooms
- Develop a Radiant/Convective System Module for the Simulation and Analysis of Space and Systems
- Development of Maximum Technically Achievable Energy Targets for Commercial Buildings (ultra low energy use building set)
- Short-term Curtailment of HVAC Loads in Buildings
- How do Pressure Drop, Efficiency, Weight Gain, and Loaded Dust Composition Change throughout Filter Lifetime



ASHRAE is an international technical society that fulfills its mission of advancing heating, ventilating, air conditioning and refrigerating to serve humanity and promote a sustainable world through research, standards writing, publishing and continuing education.

Questions?

Please contact the RP Staff:
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