

**Memorandum of Understanding
Between
The United States Department of Energy
And
The American Society of Heating, Refrigerating
and Air-Conditioning Engineers, Inc.**

By this memorandum of understanding (MOU), the U.S. Department of Energy (DOE) and the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) agree to further their long-term relationship by working cooperatively:

- To improve the efficient use of energy,
- To improve the visible and widespread use of renewable energy sources, and
- To minimize the impact of energy use on the environment.

DOE enters into this MOU pursuant to the authority of section 646 of the Department of Energy Organization Act (Pub. L. 95-91, as amended; 42 U.S.C. § 7256) and Title III of the Energy Conservation and Production Act (Pub. L. 94-385, as amended; 42 U.S.C. 6831 *et seq.*).

DOE and ASHRAE are committed to working together toward the following goals:

- 1) Promote and support the continued development of ASHRAE standards related to energy efficiency, including:
 - American National Standards Institute (ANSI)/ASHRAE/Illuminating Engineering Society (IES) Standard 90.1, *Energy Efficient Design of New Buildings Except Low Rise Residential Buildings*,
 - ANSI/ASHRAE/IES Standard 90.2, *Energy Efficient Design of Low-Rise Residential Buildings*,
 - ANSI/ASHRAE Standard 62.1, *Ventilation and Acceptable Indoor Air Quality In Commercial, Institutional, Industrial and High-rise Residential Buildings*,
 - ANSI/ASHRAE Standard 62.2, *Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings*,
 - ANSI/ASHRAE/IES Standard 100, *Energy Efficiency in Existing Buildings*,
 - ANSI/ASHRAE Standard 135, *BACnet – A Data Communication Protocol for Building Automation and Control Networks*,
 - ANSI/ASHRAE/USGBC/IES Standard 189.1, *Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings*, and
 - Proposed ASHRAE/NEMA Standard 201, *Facility Smart Grid Information Model*.
- 2) Support a goal for the 2013 version of Standard 90.1 (Standard 90.1-2013) to be 50% more energy efficient than the 2004 version of Standard 90.1-2004.
- 3) Promote and support Standard 90.1 through training programs, including self-directed learning, building interaction, and ASHRAE Chapter-oriented training.
- 4) Cooperate in promotion for the adoption of Standard 90.1 in building codes and in the International Standards Organization (ISO) standards.
- 5) Collaborate on the accelerated development and distribution of advanced energy design guidance publications, such as 50% Advanced Energy Design Guides that can be utilized as an alternative to the prescriptive path in Standard 90.1-2013, for a more sustainable built environment.

- 6) Work within the building community and related professions to encourage the interoperability of building related software and integrated solutions among design disciplines, manufacturers, contractors, building owners and operators, to increase energy efficiency, health, and productivity in new and existing buildings.
- 7) Support participation of DOE personnel in ASHRAE activities.
- 8) Provide and support communication of information regarding technology transfers to building owners and management about the interrelationships between mechanical systems and building operating costs, noting energy, indoor environmental quality workplace performance, client satisfaction, and public safety.
- 9) Collaborate to increase the impact of the energy hubs created as part of the DOE Energy Efficient Building Systems Regional Innovation Cluster Initiative.
- 10) Support the development and implementation of next-generation refrigerants that achieve Low- GWP (Global Warming Potential) targets and concurrently improve equipment energy efficiency.


Collaboration under this MOU will be in accordance with applicable statutes and regulations.

This MOU in no way restricts either of the parties from participating in any activity with other public or private agencies, organizations or individuals.

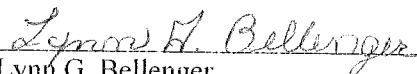
This MOU is neither a fiscal nor a funds obligation document. Nothing in this MOU authorizes or is intended to obligate the parties to expend, exchange, or reimburse funds, services, or supplies, or transfer or receive anything of value.

This MOU is strictly for internal purposes for each of the parties. It is not legally enforceable and shall not be construed to create any legal obligation on the part of either party. This MOU shall not be construed to provide a private right or cause of action for or by any person or entity.

The MOU will become effective upon signature by the Assistant Secretary for the Office of Energy Efficiency and Renewable Energy in DOE and the President of ASHRAE. It may be modified or amended by written agreement between both parties, and such amendments shall become part of, and shall be attached to this MOU. This MOU shall terminate at the end of three (3) years unless revised or extended at that time by written agreement of the parties. It may be terminated at any time by either party upon 90 days written notice to the other. Its provisions will be reviewed periodically and amended/supplemented if mutually agreed upon in writing.



Henry Kelly
Acting Assistant Secretary
Energy Efficiency and Renewable Energy
U.S. Department of Energy



Lynn G. Bellenger
President 2010-2011
ASHRAE

Date June 25, 2011

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