

**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) Office of Energy Efficiency and Renewable Energy (EERE) and the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) agree to further their long-term relationship by working cooperatively to:

- Advance decarbonization of the building sector by increasing the energy efficiency and reducing the carbon footprint of buildings beginning with the construction phase throughout the buildings life, including operation and maintenance;
- Increase the grid-interactivity of buildings by advancing grid-flexibility, flexible energy storage, and renewables integration into buildings;
- Promote more resilient, efficient buildings through the adoption of advanced building standards and codes, including supporting innovative code approaches in the model code development, building performance standards, and zero energy codes;
- Increase compliance with the latest building energy codes by supporting States in understanding latest codes;
- Improve building resiliency and keeping occupants safe;
- Develop the workforce of the HVACR and associated sectors including through increasing diversity and advancing training to support decarbonization; and
- Improve overall building performance, including for occupants' health and well-being.

EERE enters into this non-binding 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.*).

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

1. Encourage the continued development of voluntary consensus-based standards related to energy efficiency and decarbonization in new and existing buildings and promote standards adoption and compliance.
2. Further the development of low-carbon construction and advance education and research about embodied carbon for buildings.
3. Encourage transparency, inclusion, diversity, and collaboration in the development of consensus-based standards referenced in ASHRAE Standard 90.1.
4. Collaborate with the Department on the development of consensus-based standards referenced in ASHRAE 90.1 to the maximum extent allowed by law such that they are developed in a timely manner consistent with DOE's statutory mandates and reference DOE regulations, wherever possible.

5. Encourage states to adopt each succeeding version of Standard 90.1 (Energy Standard for Buildings Except Low-Rise Residential Buildings), to realize energy and cost savings, decarbonize, and support grid-flexibility.
6. Assist States and units of local government with compliance with these standards and codes through educational outreach and training.
7. Support workforce development of the HVACR and building sectors to improve performance and decrease emissions from the built environment, including through broadening outreach to more diverse communities.
8. Address the interconnection between building decarbonization and equity and environmental justice, including through data sharing, education and training, and convening stakeholders.
9. Continue to collaborate in the development and encourage the use of innovative code approaches, including building performance standard, zero-energy codes, decarbonization approaches, and advanced energy design guides.
10. Advance the continued development of low-GWP refrigerants, and their effective, energy efficient and safe use, including through standards, education, training, and research.
11. Provide and encourage the use of clear and consistent information to the building industry about improved building performance through commissioning and use of energy audits, harmonized data standards, facility management and operations training, the long-term benefits of building decarbonization including resilience, cost-savings, and health.
12. Work within the building community and related sectors including utilities to encourage the interoperability of building related software and integrated solutions among design disciplines, manufacturers, contractors, building owners and operators, and utilities to decarbonize the building sector and improve building and grid resilience, health, and productivity in new and existing buildings.
13. Encourage communication of information regarding technology transfers and facilities training to building owners and management about the interrelationships between mechanical systems and building operating costs, concerning energy, indoor environmental quality workplace performance, client satisfaction, resilience, productivity, health impacts, and public safety.

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. The words “encourage,” “support,” and “cooperate” do not imply any material or financial assistance, transaction, or obligation by either party.

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.

This MOU is subject to, and will be carried out in compliance with, all applicable laws, regulations, and other legal requirements.

The MOU will become effective upon signature by the Assistant Secretary for EERE 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.

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Kelly Speakes-Backman

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Kelly Speakes-Backman
Principal Deputy Assistant Secretary
Office of Energy Efficiency and Renewable Energy
U.S. Department of Energy

Michael CA Schwedler
President 2021-2022
ASHRAE

6/05/2022

Date

6/16/2022

Date