CUSTOMER SOLUTIONS

Update: Energy Codes for Buildings & Equipment Efficiency Standards

March 2025

WELCOME

The equipment we buy, the buildings in which we live and work, and the vehicles we drive are all subject to energy codes and efficiency standards. These codes and standards "set the floor" for the efficiency and safety of all new products and buildings.

When codes and standards are technically feasible and economically justified, there are significant net benefits to customers. Energy codes and efficiency standards should be driven by actual customer savings.

FEDERAL ACTIONS UPDATE

BIDEN ADMINISTRATION TAKES FINAL ACTIONS ON MULTIPLE APPLIANCE ENERGY CONSERVATION STANDARDS; LAWSUITS FILED BY STAKEHOLDERS

Between mid-December 2024 and January 20, 2025, the U.S. Department of Energy (DOE) finalized actions for a significant number of appliances that are used in homes and businesses. The new or updated standards increase the minimum efficiency requirements of several residential and commercial electric and gas appliances between 2027 and 2030, unless modified or overturned by lawsuits.

DOE finalized rules or confirmed direct final rules for the following products:

- Residential Gas Instantaneous Water Heaters*
- Commercial Walk-in Coolers and Freezers
- Commercial Refrigeration Equipment

*On January 17, 2025, manufacturers, 21 states, the American Gas Association, American Public Gas Association, National Propane Gas Association, National Association of Home Builders (NAHB), and two state gas associations sued DOE over the final rule. Also, resolutions to disapprove this final rule under the Congressional Review Act were introduced in the U.S. House and Senate on January 15 and 23, 2025, respectively.

DOE "pre-published" final rules for the following product:

- Expanded Scope Electric Motors

DOE also withdrew final rules for the following products:

- Battery Chargers
- Commercial Fans and Blowers
- Residential Boilers

For battery chargers and residential boilers, the current federal efficiency standards are still in effect. For commercial fans and blowers, the rule would have created a first-time national energy conservation standard for these products.

In addition, final rules on ceiling fans and dehumidifiers that were submitted to the White House Office of Management & Budget's Office of Information and Regulatory Affairs (OMB/OIRA) on May 30, 2024, and July 15, 2024, respectively, remain under review.

DOE PUBLISHES FINAL DETERMINATION OF THE 2024 INTERNATIONAL ENERGY CONSERVATION CODE

On December 30, 2024, DOE officially published a determination that the 2024 version of the International Energy Conservation Code (IECC) was more efficient than the 2021 version of IECC. Under federal law, states now have until December 30, 2026, to certify to DOE that their state residential building energy codes meet or exceed the provisions of the 2024 IECC.

The 2024 version of IECC was published in August 2024, after all appeals were decided and modifications were made. Under federal law, DOE has one year to make a determination about whether a new code is more energy efficient than the most recent version of the code. DOE sent their determination to the White House OMB/OIRA for review on December 4, 2024. By December 20, 2024, the review was complete. On that same day, DOE "pre-published" the notice and sent out a website link to interested parties.

According to DOE's analysis, residential buildings meeting the 2024 IECC are estimated to achieve the following savings (compared to the 2021 IECC) based on a weighted national average basis:

- 7.80 percent site energy savings
- 6.80 percent source energy savings
- 6.60 percent energy cost savings
- 6.51 percent carbon emissions savings

DOE's technical analysis, which includes assumptions and parameters applied in the analysis, was published as a separate technical support document that can be found here.

The Bottom Line

Under the Biden administration, significant steps were taken to finalize rules and other actions to improve the efficiency of appliances and buildings. In some cases, groups filed lawsuits challenging the final rules. In other cases, DOE withdrew or did not complete actions by their final day. According to the Appliance Standards Awareness Project, the Biden administration increased the energy efficiency standards for 28 products or product classes, proposed rules for eight other products or product classes, and issued "no new standards" for 14 others appliances.

TRUMP ADMINISTRATION SETS NEW COURSE FOR THE U.S. DEPARTMENT OF ENERGY

On February 5, 2025, the new U.S. Secretary of Energy Chris Wright sent a nine-point memo to the heads of all DOE departments that highlighted the Trump administration's priorities and initial actions. In terms of building energy codes and appliance efficiency standards, below are key quotes:

"Net-zero policies raise energy costs for American families and businesses, threaten the reliability of our energy system, and undermine our energy and national security."

"Promote Affordability and Consumer Choice in Home Appliances"

"The Department will initiate a comprehensive review of the DOE Appliance Standards Program. Any standards should include a cost-benefit analysis considering the upfront cost of purchasing new products and reflecting actual cost savings for American families. The Department will pursue a commonsense approach that does not regulate products that consumers value out of the market; instead, affordability and consumer choice will be our guiding light."

TRUMP ADMINISTRATION DELAYS EFFECTIVE DATES FOR SEVERAL APPLIANCE STANDARDS TEST PROCEDURES AND FINAL ENERGY CONSERVATION STANDARDS

In February 2025, DOE published notices in the *Federal Register* to delay the effective dates of several appliance efficiency test procedures and energy conservation standards until March 21, 2025.

For federal regulations, the "effective date" is when a final rule officially goes into effect and becomes part of federal law (as published in the Code of Federal Regulations). Also, before the effective date, interested parties can file appeals to a federal agency or file lawsuits in court under the federal Administrative Procedures Act.

The effective dates have been delayed for the following final rules:

Efficiency Test Procedures (Final Rules):

- Residential Central Air Conditioners
- Residential Heat Pumps
- General Service Lamps
- Residential Clothes Washers
- Commercial Clothes Washers
- Residential Clothes Dryers

Energy Conservations Standards (Final Rules):

- Residential Gas Instantaneous Water Heaters
- Commercial Walk-in Coolers and Freezers
- Commercial Refrigeration Equipment

Please note that these are not the test procedure or efficiency standard compliance dates, which are the initial dates when manufacturers are required to fully adhere to the new regulations and follow the new procedures or to produce appliances that meet the new or updated energy conservation standards. As of March 2025, none of the published compliance dates have changed.

DOE is, however, seeking comments on any further delay of the effective dates, including the impacts of such delays, as well as comment on the legal, factual, or policy issues raised by the rules. Comments on the test procedures were due to DOE by March 7, 2025. Comments on the efficiency standards were due to DOE by March 13 or 28, 2025.

The Bottom Line

DOE published a press release highlighting these delays, but all current appliance energy conservation standards that were effective in 2024 or earlier still are in place and have not changed. Also, none of the compliance dates for new or updated standards that go into effect between 2026 and 2031 have changed, as of March 2025.

With some of the standards, it would take Congressional action (such as through the Congressional Review Act process or other legislation) to change the effective dates of those standards.

PRESIDENT TRUMP REVOKES BIDEN ADMINISTRATION EXECUTIVE ORDERS RELATED TO ENERGY AND CLIMATE

On January 20 and 21, President Donald Trump signed an executive order that immediately revoked executive orders issued by President Joe Biden. Below is a list of orders with energy and/or climate policy impacts.

- Executive Order 13990 of January 20, 2021 (Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis).
- Executive Order 13992 of January 20, 2021 (Revocation of Certain Executive Orders Concerning Federal Regulation).
- Executive Order 14008 of January 27, 2021 (Tackling the Climate Crisis at Home and Abroad).
- Executive Order 14027 of May 7, 2021 (Establishment of the Climate Change Support Office).
- Executive Order 14030 of May 20, 2021 (Climate-Related Financial Risk).
- Executive Order 14037 of August 5, 2021 (Strengthening American Leadership in Clean Cars and Trucks).
- Executive Order 14057 of December 8, 2021 (Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability).
- Executive Order 14082 of September 12, 2022 (Implementation of the Energy and Infrastructure Provisions of the Inflation Reduction Act of 2022).
- Executive Order 14094 of April 6, 2023 (Modernizing Regulatory Review).

NAHB AND 15 STATES SUE TO BLOCK UPDATED HUD AND USDA BUILDING ENERGY CONSERVATION RULES; HUD DELAYS IMPLEMENTATION

On January 2, 2025, NAHB and 15 state attorneys general filed a lawsuit against the U.S. Departments of Agriculture (USDA) and Housing and Urban Development (HUD), claiming an April 2024 rule requiring new homes or apartment buildings to be built to the more recent energy standards or codes (ASHARE Standard 90.1 and IECC 2021) in order to receive a taxpayer-backed mortgage is unconstitutional.

According to the lawsuit, filed in the U.S. Fifth Circuit of Appeals, "HUD and USDA estimated that imposition of the 2021 IECC may impact approximately 151,300 units of HUD- and USDA-financed or insured housing in states and territories that have not adopted the 2021 IECC."

Under the most recent version of the rule, which was published on May 6, 2015, HUD and USDA published a final determination that adoption of the 2009 IECC for single-family homes and ASHRAE 90.1-2007 for multi-family buildings would not negatively affect the affordability and availability of housing specified in Cranston-Gonzalez Act Section 109.

In 2020, just one of the programs covered by Section 109—Federal Housing Administration-insured loans—financed 18.3 percent of newly-built homes nationwide, and 24.5 percent of newly-built homes in the fast-growing South.

The effective date of the final determination was May 28, 2024, with the compliance date for multi-family housing programs being May 28, 2025, and for single-family housing programs being November 28, 2025. There is no information available about whether a decision will be made by May 2025.

On March 10, 2025, HUD published a notice in the Federal Register that delayed implementation of the new standards by 6 to 24 months after the effective dates, depending on the program.

NEW OR INCREASED TARIFFS ANNOUNCED OR PROPOSED IN FEBRUARY

In February 2025, the Trump administration announced a new 10-percent tariff on all imports from China, on top of existing tariffs that were created by the Biden administration and first Trump administration. In March, the new tariffs on imports from China were increased to 20 percent.

Tariffs targeting steel, aluminum, and other critical components, commodities, and equipment needed to operate the grid are being negotiated with a number of other countries.

In terms of the new tariffs on Chinese products and materials, below are key dates and the amounts that were put into place in 2024 (to determine the new total tariffs, the February 2025 values should be added to these values):

September 27, 2024

- The tariff rate on certain steel and aluminum products increased from 0 percent to 7.5 - 25 percent (now 27.5 – 45 percent).
- The tariff rate on electric vehicles (EVs) increased from 25 percent to 100 percent (now 120 percent).
- The tariff rate on lithium-ion EV batteries increased from 7.5 percent to 25 percent (now 27.5 – 45 percent).
- The tariff rate on battery parts increased from 7.5 percent to 25 percent (now 27.5 – 45 percent).

- The tariff rate for certain other critical minerals increased from 0 percent to 25 percent (now 45 percent).
- The tariff rate on solar cells (whether or not assembled into modules) increased from 25 percent to 50 percent (now 70 percent).

January 1, 2025

- The tariff rate on semiconductors increased from 25 percent to 50 percent (now 70 percent).

January 1, 2026

- The tariff rate on lithium-ion non-EV batteries increased from 7.5 percent to 25 percent (now 45 percent).
- The tariff rate on natural graphite increased from 0 percent to 25 percent (now 45 percent).
- The tariff rate on permanent magnets increased from 0 percent to 25 percent (now 45 percent).

As shown below, Chinese companies (whether operating in China or elsewhere) have very significant market shares (based on 2021-2023 data):

- Crude Steel: China's market share of global production is 54 percent.
- Aluminum: China's market share of global production is 59 percent.
- Semiconductors: China's market share of global production is 18 percent.
- EVs: China's market share of global production is 35 percent.
- Batteries/key components: China's market share of global production is 74–97 percent.
- Solar cells/components: China's market share of global production is 75-97 percent.

The most up-to-date information on tariffs is available here.

BUILDING ENERGY CODE ACTION UPDATES

ASHRAE WORKING TO FINALIZE SIGNIFICANT CHANGES FOR THE 2025 VERISON OF STANDARD 90.1

As of March 2025, several proposed changes to the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) 90.1 standard for new and renovated commercial buildings were being reviewed or finalized. Significant areas of debate at February meetings focused on proposed language for EV charging stations, renewable energy requirements, and reducing emissions as part of the standards.

Addendum az would add EV charging station efficiency and load management requirements when installed at a building or building site. No public comments were received during a 30-day comment period. The ASHRAE 90.1 committee voted to publish the addendum with knowledge of unresolved committee objectors in December 2024, and the addendum will be published on the ASHRAE website by April 2025. This is the first time that EV charging has ever appeared in the standard and will help the market for electric transportation.

Addendum ap would add energy transfer infrastructure to support transportation (such as EV charging stations) to the scope of the standard for the first time ever. This change went out for public review on October 11, 2024, for a 30-day comment period that ended on November 10, 2024. As of November 4, 2024, it received 12 comments from 11 commentors, including supportive comments from EEI and Consolidated Edison and negative comments from AGA and APGA.

Addendum aa adds the reduction of operational greenhouse gas emissions to the purpose and scope of the energy efficiency standard for the first time ever. This change went out for public review on October 11, 2024, for a 30-day comment period that ended on November 10, 2024. As of November 10, 2024, it received nine comments from eight commentors, including negative comments from AGA and APGA.

At the February 2025 meeting to discuss the comments, it was decided that a new addendum would be created to combine this proposal with another proposal related to adding energy transfer infrastructure language for transportation (Addendum ap) and then sent out for public review.

Addendum bk would add a provision to the standard that would require buildings undergoing significant alterations to cooling systems to replace existing air conditioning systems with heat pump systems. In the first version of the proposal, the focus was on using electric heat pumps. In a revised version, buildings could use either gas-fired or electric heat pumps to meet the requirement. This proposal received negative comments from AGA and APGA.

Addendum aq increases the amount of renewable energy that must be used at a building from either on-site renewable energy systems or off-site renewable energy procurement. Based on public comments, this addendum was revised and went out for another public review in late 2024. At the February 2025 meeting, the 90.1 committee voted to publish the addendum with knowledge of unresolved objectors. It should be noted that previous versions of 90.1 only allowed on-site systems to comply, but the 2025 version will allow the use of certain off-site renewable energy systems provided by energy companies. This addendum will be published by April 2025.

The Bottom Line

ASHRAE is getting closer to finalizing several actions that are facing strong pushback from some stakeholders. It is not clear if some of the modified addenda will be included in the 2025 version of Standard 90.1. Appeals or legal action may result if or when more controversial proposals are adopted.

INTERNATIONAL CODE COUNCIL (ICC) STARTS THE PROCESS FOR MAKING CHANGES FOR THE 2027 VERSION

In January 2025, committees and subgroups were finalized to start working on proposed changes to the International Energy Conservation Code (IECC) 2024 for residential and commercial buildings. All changes will be published in the 2027 version of the code.

In September 2024, ICC published the final version of the 2027 Energy Code Scope & Intent, along with the board of directors' commentary. These documents outline what can be included in the main part of the code and what must go into appendices. ICC had released a draft version of the scope, intent, and commentary in July, with comments due in August. Many parties provided input, but only minor changes were made.

The subgroups and full committees will be reviewing 394 proposed changes. As with the 2024 version, the issues of renewable energy requirements, energy credits, building electrification, source energy factors, alignment with ASHRAE 90.1, and EV charging infrastructure language will be reviewed. There are proposals from the gas industry to remove EV charging language from voluntary appendices where they currently are located.

There will be several virtual meetings held each week until the first round of work ends by June 2025. The revised document then will go out for another public review, where comments only will be accepted on approved modifications.

More information about the IECC 2027 process can be found here.

The Bottom Line

The process for updating IECC for the 2027 version is similar to the process for the 2024 IECC, with public comments only allowed during certain time periods, and subcommittees and full committees voting on many public and committee-generated proposals. Unlike the 2024 process, there only will be two periods of public comments (instead of three).

STATE/LOCAL ACTIONS UPDATE

STATES AND LOCALITIES CONTINUE TO TAKE ACTIONS ON EFFICIENCY AND POLICIES RELATED TO THE USE OF FOSSIL FUELS IN NEW AND/OR EXISTING BUILDINGS; MORE LAWSUITS FILED

Below are key actions and news items from various states and localities. Over the past several months, the most significant trend has been the increased number of legal actions.

Maryland - Building Energy Performance Standards Lawsuit

On January 13, 2025, the state of Maryland was sued over the new state Building Energy Performance Standards (BEPS).

The plaintiffs include the Maryland Building Industry Association, the Maryland Multi-Housing Association, Washington Gas Light Company, and several Montgomery County Maryland developers, who seek to block Maryland's new BEPS, a regulation that took effect in late December.

The lawsuit claims that the regulation is preempted by the federal Energy Policy and Conservation Act (EPCA), which they say was amended to prohibit local and state governments from enacting their own standards.

Background: On September 6, 2024, the Maryland Department of the Environment published proposed rules implementing BEPS requirements statewide. According to the requirements of the Climate Solutions Act, passed in 2022, the state must develop BEPS for large buildings.

This proposed regulation would require buildings of 35,000 square feet and above to report energy data annually, and, starting in 2030, these buildings will be required to meet annual greenhouse gas emission reductions, with a final goal of net-zero direct greenhouse gas emissions by 2040.

Last year, Maryland joined the White House's National Building Performance Standards Coalition, which is a group of jurisdictions across the United States that have committed to implement BEPS. More information on BEPS can be found on the Maryland Department of the Environment website.

Maryland – Montgomery County

On October 17, 2024, Montgomery County, Md., was sued in the U.S. District Court for the District of Maryland over County Bill 13-22, which requires the county executive to issue all-electric building standards for new construction by December 31, 2026. The law defines an all-electric building as having no combustion equipment, including appliances used for space heating, water heating, clothes drying, or lighting.

The lawsuit alleges that County Bill 13-22 exceeds local authority by regulating the energy efficiency and energy use of appliances that already are regulated by DOE and that the local law therefore is preempted by federal law (EPCA).

Plaintiffs include the National Association of Homebuilders, the Restaurant Law Association, the National Federation of Independent Businesses, the Maryland Building Industry Association, Washington Gas, the Philadelphia-Baltimore-Washington Laborers' District Council, and Teamsters Local 96.

As of March 2025, no decision had been made.

Oregon - Ashland

On February 18, 2025, the Ashland City Council voted unanimously to approve a carbon pollution impact fee on residential construction projects, including multi-family buildings,

that install fossil fuel appliances. The new fee will support Ashland's goal of cutting its greenhouse gas emissions at an annual average rate of 8 percent per year in pursuit of citywide net-zero emissions by 2050.

Home and apartment builders would pay a separate fee for each appliance connected to fossil fuel piping, with the largest fee applying to furnaces. The fees are based on the estimated lifetime emissions over the useful life of five appliance classes. Builders are required to pay the full lifetime fee upfront when the city issues a building permit.

According to published estimates, the fee on a gas furnace would be $4,118. On a gas water heater, the fee would be $1,289. For a gas fireplace, the fee would be $728. Gas ranges and dryers would require carbon impact fees of $374 and $145, respectively.

The carbon fee does not apply to existing buildings or outside appliances. The policy will go into effect in January 2026.

Avista Utilities and the Northwest Gas Association filed testimony in opposition. The ordinance also required Avista Utilities to report total Ashland residential and commercial gas use annually.

Washington, D.C.

On October 17, 2024, Washington Gas, NAHB, the Maryland Building Industry Association, the Teamsters Local 96, Laborers' International Union of North America Philadelphia/Baltimore/Washington Laborers' District Council, the Restaurant Law Center, the National Federation of Independent Business, and the National Apartment Association filed a lawsuit in Washington, D.C., that challenges the ban on fossil fuels in new construction set to take effect in 2026.

The parties are seeking declaratory and injunctive relief against enforcement of the Clean Energy D.C. Building Code Amendment Act of 2022.

This law prohibits the use of gas (or other fossil fuel) appliances in newly constructed or substantially improved existing commercial buildings (including residences exceeding three stories) that may be mixed-use structures, restaurants, apartment buildings, hotels, condominiums, or houses.

For those buildings, the new law requires the mayor to issue—by December 31, 2026, at the latest "final regulations requiring all new construction or substantial improvements of covered buildings to be constructed to a net-zero-energy standard."

The D.C. definition of "net-zero-energy standard" includes that "[o]n-site fuel combustion shall not be permitted for the provision of thermal energy to the building." This prohibits the use of fossil-fuel combustion appliances.

If the mayor does not adopt net zero energy standard regulations by December 31, 2026, "no building permit application submitted after December 31, 2026, shall be approved unless the building design complies with the most recent version of Appendix Z of the DC Energy Conservation Code. Under Appendix Z, "[o]n-site combustion of fossil fuels shall not be permitted for the provision of thermal energy to the building." This, again, prohibits the use of fossil fuel appliances.

As of March 2025, no decision had been made.

Washington State

There are two lawsuits related to the state building energy codes and the results of Initiative 2066 that are of note.

Initiative 2066, known as the "Protect Energy Choice Initiative," was approved by state voters in 2024 by a 51.7-percent to 48.3-percent vote. More than 3.75-million state residents voted on the initiative, representing 75.2 percent of eligible voters.

The initiative prohibits both state and local governments from restricting the use of natural gas in buildings. It also has an impact on recently enacted state laws.

Lawsuit #1: One of the lawsuits was filed by the Building Industry Association of Washington (BIAW). BIAW sued the Washington State Building Code Council (SBCC) in court in December 2024 to force SBCC to act faster than the proposed timetable.

On February 13, 2025, a Thurston County judge granted the state's motion and dismissed the BIAW lawsuit.

On February 21, 2025, BIAW filed a new lawsuit to force SBCC action. The lawsuit, filed at the Thurston County Superior Court, asks the court to require SBCC to enter into an emergency rulemaking to speed compliance with Initiative 2066.

As of March 2025, no court decision had been made.

In mid-November 2024, in parallel action as part of the regulatory process, BIAW asked SBCC to eliminate restrictions on fossil fuel equipment that was part of the March 2024 code revision.

In addition, in December 2024, BIAW asked for an emergency rulemaking by SBCC to resolve conflicts between the new law and the 2024 code. The code council decided to have technical experts review the rules and recommend any changes to comply with the new law.

On February 6, 2025, SBCC discussed BIAW's petition and voted on whether an emergency exists pursuant to state law [RCW 19.27.032(1)(c)(iii)(B)]. The council denied finding an emergency pursuant to RCW 19.27.032 with a vote of 10 against and 2 for.

On February 15, 2025, BIAW received a written denial from SBCC and, in late February, SBCC issued the following statement:

"There has been confusion over the WA energy codes and the passage of I-2066, and whether the codes should be enforced. The Council has debated this at length and heard from the public. There are numerous laws that require the

WA energy codes to meet certain requirements, including increasing energy efficiency, meeting requirements for cost, a public process, and the I-2066 initiative. The Council is investigating changes necessary to bring the codes into compliance with the requirements under I-2066 and all other relevant laws. **Until such time as the Council adopts any changes, the current 2021 codes will remain in place."** *(emphasis added)*

Lawsuit #2: In December 2024, a lawsuit was filed by King County, the City of Seattle, and three environmental organizations that contends that Initiative 2066 was unconstitutional because it did not follow laws that limit citizen initiatives to only one subject and it requires an initiative to contain the full text of the portion of state laws that would be altered.

The plaintiffs contend that the measure is unconstitutional because it deals with at least two different subjects—the law concerning future planning by Puget Sound Energy under HB 1589, and the array of changes to the state energy code. The lawsuit also contends it "improperly amends existing laws" by not spelling out the full text of proposed alterations. Also, a third claim is that the ballot title did not fully describe for voters what the initiative would do.

The lawsuit was heard in King County Superior Court on March 21, 2025.

The Bottom Line

New laws and regulations are being adopted by states and localities that contain new and/or more controversial provisions. Over the past several months, there has been an increase in the number of legal battles over these laws and regulations. These lawsuits can have significant impacts on customers, manufacturers, builders, and energy companies. They also can create more legal and regulatory uncertainty for all affected parties.

Comments or Questions?

For questions or more information, please contact Steve Rosenstock at srosenstock@eei.org.