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.

In December 2023, AGA, APGA, and NPGA filed a petition with the U.S. Circuit Court of Appeals in Washington, D.C. that challenged DOE’s Residential Furnace Final Rule that was published on the same day (December 18). The rule requires residential non-weatherized gas furnaces and mobile home gas furnaces be condensing units with a minimum efficiency rating of 95.0 AFUE as of December 18, 2028.

Between January and March 2024, DOE published “direct final rules” based on an agreement reached between manufacturers and advocates in Fall 2023 for the following residential appliances and their effective dates:

- Dishwashers: June 2027
- Cooking Products: January 2028
- Clothes Washers: March 2028
- Clothes Dryers: March 2028
- Refrigerators/Freezers: January 2029 or January 2030, depending on product type.
- Miscellaneous refrigeration products (such as wine chillers): January 2029

If DOE does not receive any adverse comments, then the direct final rules will be published as final rules in the Federal Register later this year.

**DOE “GAME CHANGING” FINAL RULES TO MONITOR CLOSELY**

Between November 2023 and March 2024, DOE submitted final rules to OIRA for multiple residential appliances, commercial equipment, and federal building efficiency standards.

The final rules of the highest significance for customers and energy companies and the dates that the rules were received by OIRA are as follows:

- General Service Lamps (11/20/2023)
- Residential Water Heaters (1/23/2024)
- Distribution Transformers (1/29/2024)

These rules can be considered “game changers” as they will create significant changes in the markets for these products. If the final rules align with the proposed rules, anywhere from 75 percent to 98 percent of products in these categories on the market today, including many high-efficiency products, will not be allowed to be manufactured or imported within 2-5 years of the publication of the respective final rules.

In February 2024, EEI meet with representatives from OMB, DOE, and the White House Office of Domestic Climate Policy (Climate Policy Office) to discuss the distribution transformers rulemaking. Several other stakeholders, such as the National Electrical Manufacturers Association (NEMA), National Rural Electric Cooperative Association (NRECA), American Public Power Association (APPA), National Association of Home Builders (NAHB), Cleveland-Cliffs (steel company), and the United Auto Workers (UAW) also had meetings with federal government officials.

As of April 2, 2024, the four key final rules are still being reviewed by OIRA.

**The Bottom Line**

For many of these rules, DOE is required under a consent decree to publish final actions by June 30, 2024. The more stringent the final rules, the larger the impact on markets for these products and on the future of energy company distribution systems and energy conservation programs. Overly stringent efficiency standards risk eliminating the cost-effectiveness of certain residential energy efficiency programs.

When DOE publishes final rules that are controversial and create “game changers” in terms of product costs and impact on customers and businesses, there is a higher likelihood of multi-year litigation.

**DOE RELEASES RFI ON THE DEFINITION OF ZERO EMISSIONS BUILDING**

In January 2024, DOE issued a request for information on “Part 1 of a Draft National Definition for a Zero Emissions Building.” Comments were originally due in early February, but after hearing from interested parties, DOE extended the deadline to March 6, 2024. DOE also held virtual “listening sessions” to obtain feedback.

Under Version 1.00 of the draft criteria, DOE proposed the following:

A zero operating emissions building is one that is:

1. Highly energy efficient: The existing building’s energy performance places it among the top 25 percent most efficient buildings in the market with a similar use, based on measured whole-building energy use. The new building’s estimated whole building energy use is at least 10 percent lower than the energy use according to the latest IECC or ASHRAE 90.1 model code, and the building is designed to achieve energy performance in the top 10 percent of similar buildings.

2. Free of on-site emissions from energy use: The building’s direct greenhouse gas emissions from energy use equal zero.

3. Powered solely from clean energy: All the building’s energy is from carbon-free sources (which can include onsite generation and off-site sources).

DOE also wrote: “While Part 1 focuses on operational emissions, which have well-established measurement protocols, reducing the whole life-cycle emissions of a building also requires minimizing the embodied carbon of the building as well as minimizing the impacts of refrigerants. Such emissions may be addressed in parts of the definition that will be released at a later date.”

As of April 2, 2024, DOE has not published a final version of Part 1 of this definition.

**DOE ANNOUNCES $90 MILLION MORE IN STATE AND LOCAL BUILDING ENERGY CODE UPDATE FUNDING**

On March 4, 2024, DOE announced the release of another $90 million in funding to support building energy code adoption, training, and technical assistance to states, localities, and tribes. This Funding Opportunity Announcement
UPDATE: ENERGY CODES FOR BUILDINGS & EQUIPMENT EFFICIENCY STANDARDS

(FOA) is the second installment of the Bipartisan Infrastructure Law: Resilient and Efficient Codes Implementation (Section 40511) initiative and follows the 27 awards that were announced in July of 2023, which included activities such as workforce development, community engagement, research and data collection, and increased support for compliance and enforcement. The total amount of funding under this law is $225 million. DOE stated that it anticipates making 20 to 40 awards under this FOA.

In addition to the funding for codes through the Bipartisan Infrastructure Law, in September 2023, DOE announced the release of $400 million from the Inflation Reduction Act for states and localities to update and implement the latest versions of building energy codes ($240 million) or to adopt and implement “net zero energy” codes ($160 million). In December 2023, DOE announced the release of an additional $530 million in competitive grants for states and localities to update and implement the latest or “net zero” energy codes.

The Bottom Line
When the totals are combined, it is probable or highly likely that by the end of 2024, DOE will provide more than $1.1 Billion in funding to help states, local governments, and tribal governments adopt and enforce updated building energy codes and “net zero” building energy codes.

BUILDING ENERGY CODE ACTION UPDATE

DOE ISSUES FINAL DETERMINATION OF ASHRAE 90.1-2022; STATES HAVE TWO YEARS TO UPDATE THEIR BUILDING ENERGY CODES

On March 6, 2024, DOE issued its final determination that ASHRAE 90.1-2022 is more energy efficient than ASHRAE 90.1-2019. In its determination, DOE provided estimates at the national level that commercial buildings meeting Standard 90.1–2022, as compared with buildings meeting Standard 90.1-2019 edition, would result in:

- Average site energy savings of 9.8 percent and source energy savings of 9.4 percent.
- Average energy cost savings of 8.9 percent.
- Average avoided CO2 emissions savings of 9.3 percent.

For the five previous versions of Standard 90.1 (2007, 2010, 2013, 2016, and 2019), DOE published a preliminary determination to allow input from interested parties before issuing a final determination. For the 2022 version, DOE did not publish a preliminary determination. DOE’s continued uses of “marginal” and/or national source energy and emissions factors likely overstate upstream energy and emissions savings for electricity.

Under federal law, states have two years (until March 6, 2026) to provide certification to DOE that they have updated their state building energy codes. However, there are no penalties for non-compliance and only 10 states have state energy codes that meet the 2019 standard.

In the final determination DOE provided additional guidance to states related to certification in recognition of the fact that not all states have a statewide commercial building energy code and some statewide codes do not apply to commercial buildings.

The Bottom Line
More states are likely to update their state commercial building energy codes in 2024 and 2025 due to new final determination and the funds that are available through DOE courtesy of the Bipartisan Infrastructure Law and the Inflation Reduction Act.

ICC INTERNATIONAL ENERGY CONSERVATION CODE 2024 APPEALS AND FINAL DECISIONS

In November 2023, the ICC Residential and Energy Code Committees completed their work after final votes were taken on the final version of the 2024 International Energy Conservation Code (IECC).

Under the process, parties were allowed to appeal the final decisions. By January 2, 2024, nine appeals were filed on the IECC 2024 (residential and commercial sections). The appeals were filed by the American Gas Association (AGA), the American Public Gas Association (APGA), the Air Conditioning Heating and Refrigeration Institute (AHRI), the Building Owners and Managers Association (BOMA) jointly with the National Multifamily Housing Council (NMHC), and ICC Region VI.

Code changes that were appealed included the following:

- Requirements for on-site renewable energy systems along with community renewable options for certain buildings.
- Requirements for electric vehicle (EV) charging...
Requirements for "electric ready" infrastructure near where fossil fuel equipment/appliances are installed.

Requirements for all-electric buildings.

Requirements for demand responsive/grid-interactive appliances.

Requirements for energy credits, with higher requirements for buildings without electric heat pumps.

ICC policy states that the Appeals Board “shall only consider matters of process and procedure and to sustain an appeal must determine there was a material and significant irregularity in the process or procedures.”

The Appeals Board held hearings from February 21-23, 2024, and 45 viewpoint papers were submitted and more than 100 individuals provided verbal testimony as an appellant or as interested parties in support of or in opposition to the filed appeals.

On March 4, 2024, the Appeals Board published their recommendations report and concluded:

“With respect to each of the nine appeals, the Appeals Board finds that the appellants have not demonstrated a material and significant irregularity of process or procedure, and therefore recommends the ICC Board of Directors deny each appeal.”

The ICC Board of Directors met on March 18, 2024, to review the appeals and the report provided by the Appeals Board. At the Board meeting, appellants, ICC staff, supporters, and opponents were given the opportunity to speak. However, unlike the Appeals Board hearings, no visual presentations were allowed, and rebuttals were not permitted. After the meeting, the Board went into closed into executive session to deliberate.

On March 20, 2024, the Board of Directors made the following decisions for the final version IECC 2024 (residential and commercial):

“The International Code Council Board of Directors determined that the scope and intent governing the 2024 IECC prohibited the inclusion of measures that did not directly affect building energy conservation within the base of the draft 2024 IECC.”

As a result, the following provisions were moved from the committee-approved mandatory “normative” part of the code to voluntary appendices that jurisdictions can choose to adopt:

- Heat pump buildings energy credits
- Demand response equipment/controls
- EV charging infrastructure
- Electric energy storage system readiness
- Residential solar readiness
- Residential electric readiness

Also, certain new appendices were moved to a new informative “resource” section of the IECC 2024 or modified:

- Appendix CG (all-electric commercial) and Appendix RE (all-electric residential) were moved to the “resource” section “due to significant risk of preemption based on case law.”
- Appendix CD Section CD101.1 and Table CD101.1 (prescriptive glide path to net zero): were moved to the “resource” section due to “significant risk of preemption based on an inability to comply with minimum efficiency equipment.”
- Appendix RG (glide path to net zero) was retained as an appendix along with a “cautionary note regarding the limited compliance options for minimum efficiency equipment in specific climate zones.”

The Bottom Line

After 358 committee and subcommittee meetings, multiple working group meetings, the Appeals Board hearings, and the Board of Directors meeting (adding up to more than 10,100 person-hours of work over the last 2½ years), the IECC 2024 was published with many of the challenged provisions moved to the voluntary Appendix section or to a new “resource” section. Based on the final decision, there probably won’t be lawsuits filed by appellants. The ICC will soon announce the process and call for committee members for the 2027 version of the IECC.

REGIONAL ACTIONS UPDATE

NINTH CIRCUIT COURT DENIES CITY OF BERKELEY GAS BAN REHEARING AND BERKELEY SETTLES LAWSUIT WITH CRA

On January 2, 2024, the Ninth Circuit Court of Appeals denied the request of the City of Berkeley for an en banc rehearing of its April 2023 ruling that the federal Energy Policy and Conservation Act expressly preempts the City of Berkeley’s 2019 ordinance prohibiting installation of natural gas piping in newly constructed buildings. The Ninth Circuit also amended its opinion, stating that its ruling “has nothing to say about a State or local government regulation of a utility’s distribution of natural gas to premises where covered products might be used.”
In its November 2019 lawsuit, the California Restaurant Association (CRA) argued that the Berkeley ordinance clashed with the federal Energy Policy and Conservation Act (EPCA) jurisdiction in regulating the quantity of gas consumed in appliances. A U.S. District Court judge dismissed the CRA's interpretation of EPCA as expansive and unpersuasive in July 2021, but the Ninth Circuit panel took a broader view of the law.

In its April 2023 decision, the three-judge panel of the Ninth Circuit Court concluded that EPCA preempted the Berkeley gas ban, noting that EPCA regulates the energy efficiency and use of consumer products and supersedes local and state regulations for EPCA-covered products. It also noted that one section of EPCA does cover the issue of building codes: “A regulation . . . that is contained in a State or local building code for new construction concerning the energy efficiency or energy use of a covered product” is superseded by EPCA unless it complies with various requirements. 6297(f)(1)-(3) (emphasis added)."

After the denial of the en banc rehearing, the City of Berkeley could have filed a petition with the U.S. Supreme Court to review the April 2023 opinion. The city had until April 1, 2024, to file its petition.

On March 22, 2024, the City of Berkeley and the CRA announced that they had reached a settlement. Under the settlement, Berkeley immediately stopped enforcing the ordinance and said it would repeal the ban on gas piping in new buildings. Since the process of passing the repeal legislation will take several months, the parties agreed to put the case (remanded to District Court) on hold until September 10, 2024, to allow Berkeley time to take the action, at which point the case will be dismissed.

**NINE STATES SIGN MEMORANDUM OF UNDERSTANDING TO ACCELERATE THE TRANSITION TO “ZERO EMISSION” BUILDINGS**

In January and February of 2024, officials from nine states (California, Colorado, Maine, Maryland, Massachusetts, New Jersey, New York, Oregon, and Rhode Island) signed a MOU to accelerate the transition to “zero emission” buildings. As part of the MOU, the states agreed on the following goal for the residential building sector: “at least 65% of residential-scale heating, air conditioning, and water heating equipment shipments will be zero-emission heat pump equipment by 2030 and 90% by 2040.”

In addition, the nine states agreed to develop a multistate action plan with priority actions to support widespread electrification of new and existing residential buildings. Additional information on the Zero-Emission Residential Buildings Action Plan can be found [here](#).

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**STATE/LOCAL ACTIONS UPDATE**

**STATES CONTINUE TO TAKE ACTIONS ON EFFICIENCY AND POLICIES RELATED TO THE USE OF FOSSIL FUELS IN NEW AND/OR EXISTING BUILDINGS**

Over the past several months, several states have taken significant regulatory and legislative actions related to energy efficiency and the use of fossil fuels in new and/or existing buildings.

**California**

On March 29, 2024, the California Energy Commission (CEC) released the “45-Day Express Terms” document that contains the proposed updates to the state Title 24 building energy code. Among the key proposed changes from the 2022 version are the following requirements:

- New requirements for solar or heat pump water heating systems for pools and spas.
- New all-electric readiness for commercial kitchens.
- New electric-ready requirements for multi-family water heating systems.
- New requirements for heat pump water heaters in individual dwelling units in low-rise multi-family buildings.

Public hearings will be held on these proposed changes from April 16 to 18, 2024. Comments on the 45-Day Express Terms are due to the CEC by May 13, 2024.

**Palo Alto, California**

After the January 2024 Ninth Circuit Court decision to deny the City of Berkeley’s request for an en banc rehearing, the City Council of Palo Alto directed its Department of Planning and Development Services to stop enforcement of its all-electric building requirement.
Any developer who applied for a building permit since the newly adopted all-electric requirement took effect in 2022 will now be able to revise their application to include gas infrastructure. The city will enforce the state version of the building energy code (Title 24-2022) in the interim period.

City council members stated that they were in favor of a new updated energy code with strict energy-efficiency standards that developers will have a harder time meeting if they install gas appliances. The council's vote directed the city's planning staff to survey “One Margin” ordinances in other communities, including San Luis Obispo, San Jose, and Santa Cruz and return within six months with a proposal based on those models but customized for Palo Alto.

“One Margin” codes strongly encourage adoption of electric water- and space-heating appliances but provide builders with flexibility to install gas stoves and outdoor equipment such as fire pits.

**Colorado**

On February 26, 2024, Governor Jared Polis released the second version of the climate action plan to cut greenhouse gas (GHG) emissions by 50 percent by 2030 and make progress toward “net-zero” GHG emissions in Colorado by 2050.

According to a press release, “The near-term actions in Roadmap 2.0 build on previous actions to address emissions from transportation, electricity generation, buildings, oil and gas, industry, and agriculture/natural and working lands.”

In the new roadmap, there is a final list of 49 “Near-Term Actions that will start in 2024, 2025, or 2026. Actions include legislation to support “climate friendly strategic growth”; state policies to achieve 100 percent clean electricity generation by 2040; regulatory policies to reduce emissions from oil and gas, landfills, and coal mines; and a host of state agency actions to support emissions reductions from the built environment.

For 2024, proposed near term actions include (but are not limited to):
- Update clean energy planning for 2040.
- Reform electric distribution system planning for investor-owned electric companies to support statewide goals.
- Pursue strategic electrification or thermal energy projects to improve safety and affordability of natural gas distribution.
- Increase energy efficiency and electrification for Colorado’s affordable housing programs.
- Streamline local EV charger deployment.
- Expand low-income access to distributed solar.
- Expand on-bill financing for building energy improvements.
- Develop 2035 clean heat targets for gas utilities.
- Expand funding for voluntary industrial decarbonization projects.

For 2025, proposed actions include (but are not limited to):
- Adopt low-energy and low-carbon building codes.
- Accelerate heat pump deployment for equitable access to heating and cooling.
- Begin developing a strategic plan for electrification of buildings and appliances.
- Develop strategies for net-GHG-neutral oil and gas development and operations.
- Begin developing a statewide industrial decarbonization strategy.
- Address embodied carbon and consumption-based emissions.

For 2026, the most notable action proposed is:
- Extend GHG reduction targets for existing large buildings.

More information on this roadmap is available here.

**Washington**

Industry groups filed two lawsuits against the most recent state building energy codes:

**Lawsuit #1:** In February 2023, the Building Industry Association of Washington (BIAW) and others (such as propane companies and a restaurant) filed a state lawsuit in Thurston County Superior Court. This lawsuit alleged the State Building Code Council (SBCC) violated state rulemaking laws in approving the costly new codes restricting the use of natural gas and propane in new residential and commercial construction in the first place.

On March 8, 2024, a Thurston County Superior Court judge denied a motion to stay or suspend implementation of the state’s new building energy codes. The ruling allowed the new statewide building and energy codes to go into effect as scheduled on March 15, 2024.

**Lawsuit #2:** On January 23, 2024, the BIAW and others filed a second amended petition for declaratory judgment and asked
the Thurston County Superior Court to invalidate provisions of the state’s new building and energy codes.

The petition alleges the SBCC violated the state Open Public Meetings Act (OPMA), the Regulatory Fairness Act’s requirement for a small business economic impact statement, and the Administrative Procedures Act.

“The SBCC overstepped when it approved these far-reaching new energy codes effectively banning natural gas,” said BIAW General Counsel Ashli Tagoai. “We maintain that the SBCC does not have the authority to implement Governor Inslee’s environmental agenda through building and energy codes.”

BIAW and the others asked the Thurston County Superior Court to: 1) Declare the SBCC’s code amendments invalid; 2) Declare null and void its actions during the November and December meetings as violations of the OPMA; and 3) Award the coalition its costs and fees.

In response, the State of Washington filed a Motion to Dismiss the OPMA claim. The motion was scheduled to be heard in Thurston County Superior Court on April 5, 2024.

**The Bottom Line**

As new laws and regulations are adopted by states and localities that contain new and more controversial provisions, there is a higher likelihood of legal battles over the new laws and regulations. These lawsuits can have significant impacts on customers, manufacturers, builders, and energy companies. They can also have an impact on when and whether new laws and regulations can or will go into effect, creating 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.