



April 20, 2023

United States Department of Energy
Office of State and Community Energy Programs
1000 Independence Ave, SW
Washington, DC 20585

Re: Request for Information Section 50131. Technical Assistance for Latest and Zero Building Energy Code Adoption DE-FOA-0003054

Dear Office of State and Community Energy Programs,

The American Institute of Architects (AIA) represents over 96,000 architects and design professionals. Since 1857, AIA has been committed to safeguarding the public's health, safety, and welfare and to improving our nation's quality of life through design. Central to that mission is AIA's commitment to advancing climate action and equity in the built environment.

AIA appreciates the opportunity to respond to the Department of Energy's (DOE's) Office of State and Community Energy Program's Request for Information (RFI) on the Inflation Reduction Act grants pertaining to the "latest and zero building energy code adoption." AIA was a strong advocate for these investments as Congress crafted the Inflation Reduction Act (IRA). These grants are necessary to promote the adoption and enforcement of better building energy codes at the speed and scale required to meet the Biden Administration's emission reduction targets.

As you know, buildings currently account for roughly 39 percent of carbon emissions. Approximately 11 percent comes from embodied carbon (the emissions generated during construction or processing, fabrication, and the transport of materials). The rest is operational carbon (the emissions generated through the building's use).

Building codes and standards are foundational to the practice of architecture, setting minimum prerequisites for our industry and sending clear signals to clients about what they should come to expect from their buildings. The adoption **and** enforcement of the latest building energy codes (ideally, zero building energy codes) will improve building performance in communities across the country while simultaneously hastening market trends toward building decarbonization.

In response to the questions in the RFI, AIA respectfully submits the following responses for your consideration:

Category 1: Selection Criteria and FOA Issues

CI.1: Should DOE specify a period within which adoption of a code must be achieved? If so, what timeframe should be required for states to adopt the code (i.e., 2021 IECC/90.1-2019, Zero Energy Code, or other code/standard achieving equivalent or greater energy savings) to be eligible for funding?

DOE should establish a clear timetable for states and localities to demonstrate successful code adoption. The timeline could be aligned with the code cycle or conducted on a three-year basis to mimic the code cycle. Recognizing that some states and localities would need to improve multiple code cycles or “jump steps,” more training and technical assistance should be provided to those jurisdictions where the current code is either multiple cycles behind or there is no adopted energy code at present.

AIA recognizes the need for some flexibility, but that must be balanced against the urgency that the climate crisis requires. States and localities have demonstrated success in implementing building energy codes that are multiple code cycles advanced. For example, Louisiana recently “jumped” four steps from ASHRAE 90.1-2007 to 2021 IECC, which will take effect July 1, 2023. These grants have the potential to encourage more states to follow this example.

CI.2: What guidance should DOE provide applicants around “equivalent or greater energy savings,” including both timeframe over which savings must be achieved, and the scope of where savings occur? How should emissions reductions be considered?

First, DOE should clearly define the term “achieved” for all relevant stakeholders. Since 2021 IECC/ASHRAE 90.1-2019 are energy codes and standards against which buildings are designed, energy savings metrics are only predicted. These metrics could “achieve” design goals, but not “achieve” demonstrated operational performance. To prove that the buildings are meeting these energy savings in practice, the DOE should require post-occupancy evaluations and benchmarking to collect measured data while the building is occupied. More guidance from DOE would be helpful for designers and building owners to understand how the building would continue to be evaluated after the building is placed into service, alongside evaluations of the design.

Additionally, when considering metrics for emissions reductions, DOE guidance should also encourage metrics for broader decarbonization efforts. Energy efficiency and energy sourcing are not replacements for one another. We must urgently address both (and promote lower-carbon construction materials) to decarbonize the building sector. AIA strongly believes that building decarbonization must be achieved in new construction by 2030 and in all buildings by 2040 to limit global warming to below 1.5 degrees C.

Through the [AIA 2030 Commitment](#), we are calling on the building sector to achieve these goals. DOE could encourage grant applicants to achieve both energy savings and building decarbonization.

CI.3: How can DOE incentivize innovative Building Performance Standards, including standards that focus on affordable and sustainable housing for underserved communities?

DOE should consider multiple approaches to incentivize Existing Building Performance Standards (EBPS) including grant funding for jurisdictions to develop EBPS. Outreach to states who do not yet have a state-wide EBPS could be prioritized to those states with cities that have a local EBPS, or who are participating in the federal consortium focused on developing standards. For jurisdictions that have implemented an EBPS, which does not include emissions targets in addition to energy efficiency targets, DOE should provide additional training and technical assistance to promote the shift toward greater decarbonization.

To specifically incentivize EBPS focused on affordable and sustainable housing for underserved communities, engagement with affordable housing developers/building owners associations is key. The DOE should provide templates for state-deployed grant packages that will assist the affordable housing owners/developers in executing the necessary upgrades to meet or exceed the proposed standards.

DOE's focus on affordable and sustainable housing for underserved communities is critical. As you know, for many low-income homeowners, the cost of their energy bills is one of their most significant monthly expenditures. According to [research from the U.S. Energy Information Administration](#), 31% of American households struggle to pay energy bills. Roughly 25 million households report forgoing food and medicine to pay energy bills and of those, 7 million U.S. households face that tradeoff nearly every month. A separate [study commissioned by the Institute for Market Transformation](#) and conducted by the University of North Carolina- Center for Community Capital found that "default risks are on average 32% lower in energy-efficient homes, controlling for other loan determinants." Housing affordability must take into account operational costs. Encouraging more jurisdictions to institute EPBS can help to address the inefficiencies driving up these operational costs.

CI.5: What tools or services should DOE provide to support grantees?

To repeat the successful approach of the American Recovery and Reinvestment Act (ARRA), DOE should provide free code books and workbooks as part of their training and technical assistance to state and local governments. Training materials and resources should address cost concerns about adopting updated energy codes head-on. Directly addressing cost concerns is a practical necessity. Many communities and stakeholders are concerned about the rising costs of homes and building materials. AIA stands with them and is committed to promoting policies that increase the

supply of housing affordability across this country. However, it is a false choice to assume that updating residential building codes will make housing unaffordable.

C1.6: Should eligible entities include authorities having jurisdiction (AHJs) (e.g., certain city governments, State Energy Offices, etc.) in addition to state and local government agencies?

AIA would support this approach.

Category 3: Compliance Plan

C3.5: Should DOE develop guidance around what constitutes a compliance plan?

Yes, guidance from the DOE would be beneficial. It would help to ensure parity across different jurisdictions. AIA strongly encourages the agency to utilize grant funding for the enforcement of these building codes, not just adoption.

C3.6: Should DOE develop a template to support the compliance plan requirement?

Yes, a well-crafted and uniform compliance template would streamline reporting requirements and alleviate the administrative burden. The template should be as brief as possible and written in plain language for ease of completion, especially in underserved jurisdictions that may have limited staff resources.

C3.7: What equity considerations should DOE incorporate into any guidance or plans, especially surrounding workforce and training?

DOE should provide additional technical assistance to jurisdictions that do not currently have a code enforcement workforce and to communities that have been historically underinvested. As established in the Community Disaster Recovery Zones Act (P.L. 117-225), federally designated CDRZ communities could be one group prioritized for funding, since these communities are identified as having low community resources and at high risk for natural disasters.

Category 4: Existing Building Operations

C4.1: What types of existing building codes or standards (e.g., building performance standards) should be considered? Should these existing-building codes or standards be encouraged to focus on particular types of buildings?

Existing Building Performance Standards (EBPS) are critical since traditional building energy codes apply only to new buildings or significant renovations. That accounts for roughly 2% of buildings each year. Meanwhile, the [World Economic Forum estimates](#) that roughly 80% of the buildings in cities today will still be with us in 2050. EBPS is a tool to measure and improve the efficiency of existing buildings even when not subject to major renovations that would trigger the adoption of the updated energy code.

AIA applauds the Biden Administration for partnering with city and state governments in the Building Performance Standards coalition. [The first Federal Building Performance Standard](#) also provides a template that could be replicated in jurisdictions who have not yet developed their own EBPS.

Additionally, DOE should consider template guidance for EPBS that promotes high quality indoor air quality, especially in states where heat domes and wildfire events are becoming more common. This is a health, safety, and welfare concern. Currently, the minimum code requirements for ventilation can be met by providing housing units with operable windows. However, in locations with increased risk of wildfire smoke, smog, and other pollutants, mechanical ventilation with high-quality filtration will need to become the norm. Instituting this change as part of an EBPS would ensure the change reaches underserved communities where tenants or homeowners may be least able to afford to make these improvements on an individual basis.

Conclusion

AIA stands ready to assist in the implementation of this important policy. As DOE moves forward with developing guidance, please contact me if you need additional information. Again, we remain strongly supportive of your efforts.

Sincerely,



Sarah Dodge
Senior Vice President of Advocacy + Relationships