



National Association of State Energy Officials

May 20, 2022

Jeremy Williams
Department of Energy, Building Technologies Office
1000 Independence Ave. SW
Washington, DC 20585

Via email: RECI_RFI@hq.doe.gov

Re: Resilience and Efficient Codes Implementation (RECI) Request for Information

Dear Mr. Williams:

The National Association of State Energy Officials (NASEO) appreciates the opportunity to provide comments in response to the RECI Request for Information. NASEO is the only national non-profit association representing the governor-designated energy directors and their offices from each of the 56 States, Territories, and the District of Columbia. NASEO engages State Energy Offices to gain their input on energy policy and program best practices in every area of energy production and end use. For decades, the State Energy Offices and NASEO have worked to advance cost-effective building energy code improvements that lower building operating costs, reduce emissions, and improve building resilience across residential, multi-family, and commercial (including state and local public facilities) buildings. Building energy codes are an important tool for the State Energy Offices in their work to support energy affordability, security, reliability, as well as delivering economic and environmental benefits to the residents and businesses of their states. For questions about NASEO's response to this request for information, please contact Ed Carley, Senior Program Director (ecarley@naseo.org) or via telephone at 703-299-8800 x119.

In developing the Funding Opportunity Announcement (FOA) as directed by Congress through the Infrastructure Investment and Jobs Act (IIJA), NASEO encourages the U.S. Department of Energy (DOE) to adopt the following recommendations:

- DOE should continue the longstanding practice of not using a "one size fits all" approach to building energy codes. Different states have different needs and capacity to adopt codes depending upon states' unique economic, energy, climate, and affordability perspectives.
• States that have updated their energy codes within two years of IIJA passage should be rewarded rather than penalized for not moving their codes forward through FOA activities. Those states have a compelling need

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- for education, outreach, technical assistance, and workforce training on those updated codes.
- DOE should select a balance of programs including relatively modest, relative to the most recent editions of the International Energy Conservation Code and ASHRAE Standard 90.1, but nevertheless effective programs, and programs that are perceived to be more ambitious and test new ideas and approaches. Steady, predictable adoption of existing building energy codes and methodically engaging in training and education of building code officials and builders are required to ensure that the potential for energy savings from building energy codes are unlocked. At the same time, building performance standards and performance based codes are needed to advance the energy efficiency baseline in existing buildings and to ensure that newly constructed buildings are able to comply with building performance standards where they have been adopted.
 - State Energy Offices typically have robust, existing programs and partnerships with local governments and local government organizations based in their states. DOE should encourage program applicants to provide technical assistance using peer-to-peer approaches that build on existing State Energy Office relationships with other state and local government agencies.
 - State Energy Offices face an array of financial requests from residents and businesses representing every sector of their economies –industrial efficiency, energy technology innovation, product efficiency standards, building energy codes, transmission and distribution planning, transportation electrification, energy resilience. Ensuring State Energy Offices have additional funds to specifically address building energy codes across the residential and commercial building sectors is critically important to meeting the goals of DOE and the states, as well as Congressional intent.
 - DOE should take a long-term approach on advancing building energy code programs funded through the potential FOA. This is a complex process with unique state and local factors that will deliver more relevant and sustained outcomes by permitting five-year program terms rather than emphasizing rapid initial changes which may not endure.
 - DOE should include workforce considerations as critical elements of successful building energy code programs. Without sufficient building inspectors, energy raters, home builders, tradespeople, architects, and engineers to design, build, and inspect new buildings, no code can be successful.
 - DOE should require selected programs under this FOA to include one of the following: a funded role for relevant State Energy Office(s) as a program partner; a letter of support for the program from the relevant State Energy Offices(s); or an attestation from the program prime applicant that they have consulted the relevant State Energy Offices(s) about the proposed program. States (and local governments) adopt building codes and, in the case of building energy codes in particular, should be an integral part of selected programs.

As DOE considers the types of partnerships to support through this FOA, NASEO encourages DOE to prioritize programs that are led by State Energy Offices, or which include State Energy Offices as funded partners. We strongly encourage DOE to not narrowly define regional approaches by conventional geography, but to also encourage multi-state applications with states that may not be geographically contiguous. For example, innovative code approaches could include geographically disparate states seeking to make substantial energy efficiency, resilience, and other advances, or could include geographically disparate states facing similar adoption and compliance challenges. We also strongly encourage DOE to consider providing support to

consortia of State Energy Offices where multi-state or regional efforts are proposed and which may enable market transformation.

Category 1: Technical Requirements

1.1 DOE should prioritize increasing the number of new building officials, energy raters, builders, and tradespeople, while ensuring that the current workforce receives continuing education. However, the lack of workers with appropriate skills in building departments across the United States slows plan review, increases costs, and reduces the time available to ensure compliance with relevant codes. Time constrained work forces are also related to resistance to code adoption, as workers do not have time for training when resources are already stretched thin.

1.2 Building energy codes require collaboration between state and local governments to be successful. In many of the states, the energy code is adopted at the state level, but in all states, enforcement happens at the local level. Successful approaches to building energy code adoption, compliance and enforcement require facilitation and cultivation of state and local government collaboration. In the development of the RECI FOA, DOE should encourage programs that prioritize state and local collaboration. State Energy Offices typically have robust, existing programs and partnerships with local governments and local government organizations based within their states. In providing building energy code assistance, successful program applicants should build upon and utilize existing State Energy Office relationships with other state and local government agencies.

To encourage consideration of the resilience aspects of codes, DOE should encourage applicants to consider how energy code updates can be leveraged to access additional funding through the Federal Emergency Management Agency's (FEMA) Building Infrastructure and Resilient Communities (BRIC) program for disaster mitigation. Programs that include state emergency management agencies will be well positioned to leverage BRIC. As important as additional funding from BRIC, is the value of engaging and educating emergency management officials about the benefits of robust building codes, including building energy codes in advancing their own missions. Requiring applicants to connect code adoption with future mitigation efforts can open the door for continued funding and increase awareness of and support for more advanced codes in states where emergency preparedness and resilience are high-priorities. Applicants can be encouraged to leverage various resources, such as the FORTIFIED system for roofing, or other third-party certifications for resistance to natural disasters that are appropriate to the unique threat environment where a structure is built. The Building Code Effectiveness Grading Program could be used or adapted to evaluate effective implementation and enforcement of the energy code.

Category 2: Supporting State Code Adoption

When determining what is considered an updated code, DOE should accept code updates completed within a reasonable time frame prior to the passage of the IIJA, such as within two years (24 months). DOE should consider how recently a code update was completed in each state, and how many code editions the proposed change advances (e.g., 2009 to 2018 or 2009 to

2021). Code changes that move from older codes to more recent codes may require additional training, education, and outreach efforts when compared to states where regular updates have kept pace with the publication of new code editions.

A base package of technical assistance support should be made available to all states (regardless of award through this FOA) that update their building codes as a result of the IJJA. This base package should include guidance on establishing workforce development and training for building officials, home energy raters, and construction trades. The base package should also include technical assistance to support states as they evaluate the impact of proposed code changes on energy efficiency, greenhouse gas emissions, and resilience metrics such as hours of safety.

DOE should consider not just the energy efficiency benefits, but also the impacts of code adoption on greenhouse gas emissions. Where programs contain code updates that consider energy efficiency, cost effectiveness, emission reduction, and resilience benefits of codes, those programs should be prioritized by DOE. While most building code updates will result in improved resilience for the occupants and reduced greenhouse gas emissions, the thoughtful consideration of these issues in proposals may lead to increased collaboration between emergency managers and support applicants that also pursue FEMA BRIC funding.

When states adopt new codes as a result of RECI FOA funding, the use of federal funds for purchase of building code books, software tools that enable electronic plan review, and other tools that enable building officials to update the capabilities of their offices should be permissible. Building officials need support in adopting and adapting to modern codes, and these tools may accelerate the building permit process, which reduces the time and cost to complete construction projects. Faster permitting may help manage the cost of construction projects for builders, potentially lowering the price for buyers and building owners.

State lead-by-example efforts, such those requiring state-owned or -financed buildings to meet the most recent published code edition, should also be considered for support by the RECI FOA, particularly where high efficiency, code compliant buildings incorporate features to increase the resilience of mission critical facilities such as hospitals, shelters, schools, and water treatment facilities. DOE should consider creating separate funding streams for residential and commercial building code updates and training efforts.

2.4 As previously discussed, DOE should favor proposals that incorporate broader code updates to address resilience in addition to energy. Programs that result in code updates that incorporate resilience measures alongside measures that reduce greenhouse gas emissions or energy use should be seen as aligned with the goals of the RECI FOA.

Category 3: Partnerships, Eligible Entities, and Evaluation Criteria

DOE should emphasize strategic partnerships between states and fast-growing local jurisdictions to focus resources on communities where large numbers of new structures are being built. Additionally, multi-state partnerships may be beneficial, as in some areas, builders may work across state borders – not necessarily an entire region – and face challenges when building to

different building codes in nearby locations. National collaboratives or regional consortia that bring together state agencies with their colleagues in other states to exchange ideas on best practices, workforce development and training strategies, and address shared challenges should also be supported to improve the efficiency of program implementation, sharing of best practices, and provision of technical assistance through low-cost, high-value peer-to-peer networks.

3.1 Strategic partnerships bringing together State Energy Offices, state emergency management agencies, local governments, and where appropriate, state building agencies should be prioritized. Such partnerships have the potential to strengthen energy resilience, increase stakeholder understanding and support for building codes, and result in lower energy use by new buildings. Partnerships between these agencies may also increase the sustainability of regular code updates as additional benefits of the building codes such as resilience are elevated. When an application is not led by a State Energy Office, the applicant should be required to provide a letter of support from the State Energy Office to ensure that code updates impacts on the state's energy systems are considered. Additionally, State Energy Offices will likely have relationships with the building community, including owners and builders, and proceeding with funding programs without prior consultation with the State Energy Office may result in missed opportunities for engagement, misunderstandings of local nuances, and missed opportunities to work with key players in a state. States (and local governments) adopt building codes and, the case of building energy codes in particular, should be an integral part of selected programs.

3.2 DOE should prioritize partnerships over sole applicants. Some state agencies do not have sufficient staff to implement a building energy code program independently, and most would choose to bring in partners or contractors. Programs that incorporate partners from the beginning of the application process will likely be more successful and lead to broader acceptance. In addition, partnerships strengthen program teams by tapping into broader expertise that may be spread across state governments in areas such as code adoption, implementation, training, technical assistance, resilience, and emergency response.

3.4 With regard to distribution across rural and urban activities, and traditional and new activities, NASEO encourages DOE not to overlook suburban communities, where a significant amount of homebuilding in the United States is taking place. In addition to balancing urban, rural and suburban communities, DOE should balance the number of selected programs focusing on different types of residential (i.e., single-family, multifamily) and commercial buildings. It is also important to address infill urban new construction in urban areas along with new and existing building construction in rural, urban, and suburban communities. Rural communities face unique challenges, including lack of access to broadband internet for training or virtual inspections, lack of access to tools for electronic plan review, and difficulty recruiting building inspectors. However, building activities in rural areas may be limited compared to other areas. To address these challenges, DOE should consider projects that will provide resources that strengthen rural building offices, such as travel scholarships for trainings, circuit rider programs, and trainings that provide building officials with the opportunity to obtain continuing education credits that prepare them to adopt newer technologies and to help them understand the value of the building energy code.

3.5 State Energy Offices, state boards of building regulations, or other statewide agencies with purview over building energy codes play an important role in adoption of building energy codes and help to ensure that building codes meet the needs of the state where adoption decisions are considered. RECI partnerships should also incorporate partnerships with state emergency management agencies and other resilience and disaster recovery organizations whenever possible. In addition, partnerships and engagements with such state-level organizations as ASHRAE Chapters, International Code Council chapters, code official organizations, the League of Municipalities, Associations of County Commissions, National League of Cities, and others will help increase the success of potential RECI-funded programs.

Category 4: Period of Performance

4.1. NASEO supports a five-year period of performance unless a shorter timeframe is requested in program proposals. Building energy code updates can be time-consuming processes and the pace of adoption may be constrained by law in some states. However, in some programs, a three-year period of performance may be appropriate.

4.3. NASEO appreciates the goal of encouraging non-federal sources of funding, such as FEMA BRIC funds, utility programs, local funding, or state resources in RECI-funded programs. However, in some instances, states may not be able to contribute matching funds. States that do not have robust building code funding sources should still be able to access RECI Funds, even if they are unable to provide matching funds. Emphasizing matching funds could inadvertently disadvantage those states that offer the greatest potential for building energy code improvement and attendant energy and cost savings for residents and businesses.

Category 5: Energy and Environmental Justice (EEJ) Priorities

DOE should prioritize programs that provide training to increase the racial/ethnic, gender, and age diversity of the construction, building inspection, and energy rater workforce to reflect the community where work is being performed. EEJ objectives can be tied closely to workforce goals such as increasing minority owned businesses and increasing the number of minority students with skills relevant to the building industry through strategic partnerships with Minority-Serving Institutions (such as Historically Black Colleges and Universities, Hispanic-Serving Institutions, and Tribal-Serving Institutions), community colleges, and vocational schools.

DOE should also consider how programs targeting existing buildings will impact and/or be inclusive of underserved communities. DOE should consider supporting compliance with existing building codes or building energy performance standards in affordable housing (multifamily or single family), as well as the development of training materials in English, Spanish, and other languages important at the local level.

Category 7: Draft Application Requirements

7.2 In addition to applications that include code updates, DOE should consider applications that would significantly increase code compliance, or that would assist communities in home rule states with local code updates or statewide compliance improvements.

7.4 DOE should prioritize building energy codes and measures that provide long-term energy and cost savings over the life of the building.

7.6 Applications that maximize non-energy benefits, including building and grid resiliency and reductions in greenhouse gases and other air pollutants, should be looked upon favorably in the review process. DOE should consider including a small number of non-energy-benefit-focused programs in its grant portfolio, while most resources should be focused on increasing compliance with current codes and adoption where appropriate.

In selecting programs for funding, DOE should consider prioritizing programs that will impact building practices in each of the major ICC/ASHRAE Climate Zones to obtain an array of data that is usable across the United States.

NASEO appreciates the chance to submit comments and is happy to provide follow-up information to any of the answers provided here. Thank you for your consideration.

Best regards,

A handwritten signature in black ink, appearing to read 'DTerry', with a long, sweeping horizontal stroke extending to the right.

David Terry
Executive Director, NASEO

CC: State Energy Directors