

May 20, 2022

Building Energy Codes Program
Office of Energy and Renewable Energy (EERE) Building Technologies Office (BTO).
U.S. Department of Energy
Forrestal Building
1000 Independence Avenue, SW
Washington, DC 20585

Transmitted via email (RECI_RFI@hq.doe.gov)

RE: REL DE-FOA-0002755: Bipartisan Infrastructure Law – Request for Information on Resilient and Efficient Codes Implementations

The American Society of Civil Engineers (ASCE) is pleased to offer the following comments on the Department of Energy’s request for information on the *Bipartisan Infrastructure Law – Request for Information on Resilient and Efficient Codes Implementations* with the comment period closing on May 20, 2022.

ASCE appreciates the opportunity to offer comments to guide the implementation of the Infrastructure Investment and Jobs Act (IIJA). A once-in-a-generation boost for the nation’s infrastructure, the legislation represents a substantial down payment on the infrastructure investment gap of \$2.5 trillion over 10 years that ASCE identified in the [2021 Report Card for America’s Infrastructure](#). Thoughtful planning and implementation at the federal level will help ensure effective use of this investment.

Introduction

Founded in 1852, ASCE is the country’s oldest civil engineering organization. Representing more than 150,000 civil engineers from private practice, government, industry, and academia, ASCE is dedicated to the advancement of the science and practice of engineering. We stand at the forefront of a profession that plans, designs, constructs, and operates society’s economic and social engine – the built environment – while protecting and restoring the natural environment.

To achieve a goal of obtaining and maintaining a state-of-good-repair for all infrastructure at the lowest life-cycle cost, designers and planners are encouraged to incorporate system

resilience - the ability of a project or system to withstand and recover to full operability from extreme events quickly and efficiently - into the decision-making process. The increasing frequency and intensity of natural disasters as well as deliberate destructive events, combined with increasing population densities, reliance on technology, and system interdependencies, have demonstrated vulnerabilities in the nation's infrastructure. A vital component of resilience is understanding the impact of the loss of infrastructure and the timeline and cost to restore its function following an extreme event.

As a public service, ASCE regularly develops technical standards for critical infrastructure serving essential needs on both a state and national level. For example, the ASCE/SEI 7 *Minimum Design Loads and Associated Criteria for Buildings and Other Structures* standard is an integral part of building codes in the United States. The standard describes the means for determining design loads for general structural design. Additionally, when a catastrophic event takes place and infrastructure fails, ASCE deploys skilled engineers from our membership to assess and determine what happened, why it happened, and more importantly, to develop recommendations for future change within technical standards, as appropriate, to avert such an event.

The most efficient, cost-effective way to achieve resiliency and energy efficiency in buildings is the adoption and enforcement of state of practice - up to date - building codes and standards. The strongest role the federal government can play in support of U.S. standards development and implementation is funding the necessary research that leads to innovation and more resilient, efficient, sustainable, and cost-effective materials and processes. Furthermore, all stakeholders must work as a team to shift infrastructure funding culture from one which sacrifices resilience in pursuit of short-term cost reductions to a reliability and resilience prioritized culture.

COMMENTS

ASCE agrees the outcomes are and should be primarily focused on education local/state public agencies through partnerships. ASCE can be an effective and beneficial partner on the Teaming Partner List and will be adding our contact information through the specified link. We have technical expertise on standards and codes, sustainability, resiliency, embodied carbon, energy, climate adaptation, architectural engineering and building envelop, and other areas.

Category 1: Technical Requirements: ASCE's members can provide technical expertise from many of our existing programs including Energy and Climate Change Adaptation, Infrastructure Resilience, Sustainability, and Building Envelope. ASCE believes that state and local government can be incentivized to adopt and maintain up to date building codes through requirements of grants and other federal programs.

Category 2: Supporting State Code Adoption: ASCE local Chapters, Branches, Sections, and Institute Chapters members, supported by ASCE's Washington Office, actively collaborate with

local and state officials to provide educational programming and support for adoption of building codes.

Category 3: Partnerships: ASCE is active with many partnerships throughout the standards development community and is an accredited Standards Developing Organization through the American National Standards Institute (ANSI). DOE should partner not only with the state and local government, but other federal agencies, professional and technical societies, and other appropriate groups to work toward efficiencies and compatibility in the standards communities.

Category 4: ASCE believes that funding should, to the extent possible, synchronize with building code cycles, including the International Building Code, which is typically 6 years.

Category 5: ASCE believes the necessary education programs can be developed with the support of local government and organizations such as ASCE. The most effective means to mitigate harm to communities with environmental justice concerns is the awareness of the potential of harm and stakeholder engagement, beginning during pre-planning stages of all projects.

Category 6: To ensure a lasting impact, provisions should be incorporated into model building codes that require the reference of state of practice standards as well as adoption by local jurisdictions. Integrating a framework of reliance upon the most recently available data and body of knowledge will create resilient codes.

CONCLUSION

ASCE thanks DOE for the opportunity to comment on funding made available by Congress through the Infrastructure Investment and Jobs Act. ASCE believes that IIJA will go a long way towards repairing our aging infrastructure and ensuring future infrastructure is resilient, efficient, and sustainable, contributing to a better quality of life for all. The nation's economy will expand and prosper if it is built on a solid foundation.

For more information, please do not hesitate to contact Martin Hight, ASCE Senior Manager for Government Relations at mhight@asce.org or 202-789-7843.