

National Initiative to Advance Building Codes

FEMA Says Expanded Use of International Codes Will Help Prevent Loss of Life

By Gabriel Maser, Esq.

On June 1, 2022, the U.S. Federal Emergency Management Agency (FEMA) Administrator Deanne Criswell announced a National Initiative to Advance Building Codes, a new government-wide effort to boost national resiliency and reduce energy costs. Under the initiative, U.S. federal departments and agencies will review federal funding and financing of building construction to ensure projects follow updated model codes and provide incentives and support for communities to adopt modern building codes. In addition, members of the Mitigation Framework Leadership Group (MitFLG) will review their infrastructure grantmaking processes to ensure that they align with and support the adoption and use of current editions of the *International Residential Code (IRC)* and *International Building Code (IBC)*. FEMA chairs the MitFLG, which consists of another 13 federal agencies, including the Department of Housing and Urban Development (HUD), the Department of Energy (DOE), and the Department of Health and Human Services (HHS).

The announcement was made at the Florida International University Wall of Wind in Miami, Florida, at the start of the Atlantic hurricane season. In the aftermath of Hurricane Andrew, which struck South Florida nearly 30 years ago and resulted in 65 deaths and more than \$26 billion in damages, Florida significantly strengthened its building codes and enforcement practices. As a result, according to FEMA, Florida's codes, based on the I-Codes, have prevented over \$1 billion in losses annually since 2000.

Saving Lives and Reducing Costs

FEMA maintains that by modernizing building codes, communities will not only save money through lower energy costs and protecting their property, but lives will be saved by ensuring that the U.S. infrastructure remains resilient in the face of a changing climate and the associated extreme weather events. FEMA has committed to working with stakeholders like the International Code Council (ICC) to leverage collective knowledge and experience to bolster the adoption of the latest building codes and standards across this nation.

Every year, the U.S. government spends hundreds of billions of dollars supporting building construction and retrofits through grants and other incentives. FEMA views the adoption of current building codes as the most effective means to enable communities to become more resilient to natural hazards that are increasing in frequency and severity due to the changing climate. Yet, FEMA is currently the only U.S. federal agency that requires the construction it funds to adhere to current, hazard-resistant codes. FEMA is also the only U.S. federal agency that incentivizes state, local, tribal, and territorial (SLTT) governments to adopt and effectively implement resilient codes through its infrastructure grants. The National Initiative to Advance Building Codes aims to change that.



NOAA's GOES-7 satellite captured this image of Hurricane Andrew on August 23, 1992.

Research Backs Building Codes for Resiliency

According to the Natural Hazard Mitigation Saves: 2019 Report, requiring the current IBC and IRC prevents roughly \$14,000 in losses per building in jurisdictions where codes have not been updated in the past two decades. This represents an \$11 to \$1 return on investment in many of these areas that mitigate the loss of life and injuries, property damage, business interruptions, as well as first responder and annual homeownership costs.

According to FEMA, in recent years, 30% of new construction has occurred in these areas. According to DOE, nearly half of states' residential energy codes are currently at least 15% less efficient than the 2021 *International Energy Conservation Code (IECC)*. Per DOE, modern energy codes can save households an average of \$162 each year on utility bills. Without federal resilience and energy conservation requirements, federally-assisted construction defaults to locally adopted codes and standards.

Implementing the New Initiative

Under the new initiative, MitFLG agencies are charged with:

- Ensuring, to the extent feasible, that current programs funding and financing new and substantially rehabilitated homes and buildings follow current editions of relevant I-Codes, including, for example, the IRC, IBC, and *International Existing Building Code (IEBC)*.
- Leveraging \$225 million in DOE funding through the Bipartisan Infrastructure Law to support the adoption and implementation of updated building energy codes, such as the IECC and *International Green Construction Code (IgCC)*.
- Providing incentives and support for SLTT governments to adopt and effectively implement modern building codes,

including through outreach, education, and technical support efforts like those envisioned in FEMA's recently announced Building Codes Strategy.

- Leading by example to pilot above-code resilience and energy conservation efforts across the U.S. federal building portfolio.

Current Assistance and Resources

- FEMA's pre-disaster mitigation program, now called *Building Resilient Infrastructure and Communities* (BRIC), provides grants to fund code activities ranging from adoption and implementation to building department accreditation through a "Capability- and Capacity-Building (C&CB)" set-aside for states, tribes, and territories. Additionally, states adopting the most recent editions of building codes and with Building Code Effectiveness Grading Scale (BCEGS) ratings 1-5 earn more points towards the competitive mitigation awards.
- HUD's Community Development Block Grant Disaster Recovery (CDBG-DR) and Disaster Mitigation (CDBG-MIT) Programs require Public Action Plans from all grantees, which outline the use of funds, to include a description of how the grantee "will support adoption and enforcement of modern and/or resilient building codes that mitigate against natural hazard risks, including climate-related risks and provide for accessible building codes and standards." CDBG-DR/MIT awards may be used to support the adoption and implementation of hazard-resistant building codes. These are also the only federal funds that can be used towards the local cost-share for FEMA grants.
- Additional information on Bipartisan Infrastructure Law Energy Codes Implementation Program can be obtained from the ICC.

Why This Matters to SEs

Structural engineers rely on building codes and their code-referenced standards every day. Widespread adoption and enforcement of modern, up-to-date building codes ensure that engineers have the latest technology and tools to design and facilitate the proper construction of more resilient buildings. One example is a new provision in the

2021 IBC which now mandates structural observations (typically performed by a structural engineer) for all Risk Category III buildings. As respected members of the construction community, structural engineers can play a crucial role in advancing modern building codes. ■



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For more on this topic, please visit the following digital resources.

International Residential Code – <https://shop.iccsafe.org/international-codes/irc-references.html> (last visited 10/18/22)

International Building Code – <https://shop.iccsafe.org/international-codes/ibc-references.html> (last visited 10/18/22)

Announcement of the National Initiative to Advance Building Codes – www.iccsafe.org/about/periodicals-and-newsroom/white-house-announces-national-initiative-to-advance-building-codes-based-on-the-international-codes (last visited 10/18/22)

Building Codes Save: A Nationwide Study – www.iccsafe.org/codessave (last visited 10/18/22)

FEMA's BRIC Program – www.iccsafe.org/bric (last visited 10/18/22)

https://www.fema.gov/sites/default/files/documents/fema_fy22-BRIC-building-code-activities_08082022_0.pdf (last visited 10/18/22)

Bipartisan Infrastructure Law Energy Codes Implementation Program – www.iccsafe.org/wp-content/uploads/Key-IIJA-Provisions-for-ICC-Members.pdf (direct PDF download; last visited 10/18/22)

Natural Hazard Mitigation Saves: 2019 Report – www.nibs.org/projects/natural-hazard-mitigation-saves-2019-report (last visited 10/18/22)