

Utilizing Net-Zero Energy in FEMA Projects

The Inflation Reduction Act (IRA) authorizes FEMA’s Hazard Mitigation Assistance and Public Assistance programs to provide financial assistance to build cleaner, climate resilient infrastructure. This factsheet focuses on information and materials for FEMA applicants to exercise the new authority by considering renewable energy and energy efficient measures in hazard mitigation and recovery projects.

Overview

On Aug. 16, 2022, President Biden signed the [IRA](#)¹ into law, marking the largest clean energy investment in history. Through transformational funding for a new clean energy economy, the IRA is lowering energy costs, providing cleaner energy solutions, and reducing greenhouse gas emissions.

The IRA authorizes FEMA to provide financial assistance for costs associated with net-zero energy building practices. The utilization of this authority is for the following programs at FEMA:

- [Building Resilient Infrastructure and Communities \(BRIC\)](#)
- [Hazard Mitigation Grant Program \(HMGP\)](#)
- [HMGP Post-Fire](#)
- [Pre-Disaster Mitigation Program \(PDM\)](#)
- [Public Assistance \(PA\)](#)

Use of net-zero building practices in FEMA funded projects helps implement the agency’s [2022-2026 Strategic Plan goal](#) of leading the “whole of community in climate resilience” and encourages state, local, tribal, and territorial applicants to make strategic investments to enable community resilience.

Projects with Net-Zero Energy

A net-zero-energy building produces enough renewable energy to meet its own annual energy consumption requirements, thereby reducing greenhouse gas emissions in the building sector. Any increased cost due to using

¹ <https://www.congress.gov/117/plaws/publ169/PLAW-117publ169.pdf>



net-zero energy building practices in FEMA projects are eligible for reimbursement at the applicable cost-share for the project.

Determining a project's eligibility as a net-zero energy project:

1. FEMA projects with net-zero energy **must include renewable energy** (such as solar or wind) in an amount equivalent to or greater than the annual energy consumption of the facility (or applicable portion of the facility).
2. Additionally, applicants **have the option to** include energy efficient measures (such as heat pumps or energy star lighting) in their project(s) to reduce the amount of energy needed overall to power the facility.

Eligibility:

PA projects including net-zero energy must be connected to eligible PA work that addresses damage caused by a declared disaster. Net-zero energy projects eligible under HMA must have a tie to eligible hazard mitigation work that addresses risk and reduces suffering from disasters.

For PA, FEMA will reimburse any increased costs over traditional methods of designing and implementing a PA project, or an element of the PA project, to be net-zero. Costs will be re-imbursed at the applicable Federal cost-share for the disaster. For BRIC, PDM, HMGP and HMGP Post-Fire programs, net-zero energy projects will be funded at the same cost-share as other hazard mitigation projects if the project is cost effective and all other eligibility criteria are met.

For otherwise eligible PA and HMA projects, the increased costs of designing and constructing projects to be net-zero over traditional methods is allowable.

- For PA, applicants may use FEMA financial assistance for unobligated projects for any federal disaster declared between Aug. 16, 2022 and Sept. 30 2026.
- For HMGP and HMGP Post-Fire, this is applicable for 1) major disaster declarations between Aug. 16, 2022 and Sept 30, 2026, with open application periods as of the issuance of this fact sheet, or 2) for major disaster declarations declared after the issuance of this memorandum, provided all other program requirements are satisfied.
- For the BRIC and PDM Programs, refer to Notices of Funding Opportunities for more information.

Co-Benefits of Implementing Net-Zero Energy Projects:

Net-zero energy buildings offer many benefits, including:

- Reduced energy costs
- Positive environmental impact
- Reliable and affordable operations
- Improved energy security

In many cases, net-zero energy buildings can be designed and constructed within a standard construction budget. In other cases, future energy savings can offset any increase in construction costs.

Net-Zero Energy Project Examples:

FEMA projects utilizing net-zero energy *must* include renewable energy in an amount equivalent to or greater than the annual energy consumption of the facility (or applicable portion of the facility). In addition, applicants can include energy efficient measures in their projects to reduce the amount of energy needed overall to power the facility. For renewable energy sources applicants should follow the codes, standards, and technical specifications found in: The [International Energy Conservation Code Appendix CC Zero Energy Commercial Building Provisions](#). For high efficiency appliances and materials, applicants should reference [the International Green Construction Code \(IgCC\) Chapter 7 and Normative Appendix B](#).

Example	Description	Applicable Grant Programs	Applicable codes and standards
Solar Panels and Solar Arrays	Solar panels absorb the sun's rays as energy to generate electricity and heat. Multiple solar panels make up a solar array.	PA, HMGP, HMGP Post-Fire, PDM, BRIC	International Energy Conservation Code (IECC) Appendix CC Section CC103.1-103.2
Microgrids	Microgrids consist of a group of interconnected energy resources. Energy resources generate power through solar panels, wind turbines, and other renewable energy sources.	HMGP, HMGP Post-Fire, PDM, BRIC	International Energy Conservation Code (IECC) Appendix CC Section CC103.1-103.2
Wind Turbines	Wind turbines convert kinetic energy into electrical energy.	PA, HMGP, HMGP Post-Fire, PDM, BRIC	International Energy Conservation Code (IECC) Appendix CC Section CC103.1-103.2
High Efficiency Appliances and Materials	Appliances and materials such as heat pumps, high efficiency stoves, boilers, HVACs, roof overhangs, smart meters, high efficiency glazing may be eligible based on the associated damages or mitigation efforts of an eligible mitigation or recovery project	PA, HMGP, HMGP Post-Fire, PDM, BRIC	2021 International Green Construction Code (IgCC) Chapter 7 and Appendix B

Learn More

For more information, please reach out to your State, Tribal, or Territorial emergency management agency or FEMA Regional PA or HMA point of contact. You can also find more information at: [Building Clean, Climate-Resilient Communities through FEMA's Grant Programs | FEMA.gov](#) or by emailing fema-climate@fema.dhs.gov.