[6450-01-P]

DEPARTMENT OF ENERGY

National Definition for a Zero Emissions Building: Part 1 Operating Emissions

Version 1.00, Draft Criteria

AGENCY: Office of Energy Efficiency and Renewable Energy, Department of Energy.

ACTION: Request for information (RFI).

SUMMARY: The White House Office of Domestic Climate Policy (Climate Policy Office) seeks to create a standardized, verifiable basis for defining a zero emissions building. The U.S. Department of Energy (DOE) is issuing this RFI to receive input on Part 1 of the draft National Definition for a Zero Emissions Building. DOE intends to publish Part 1 of the definition in early 2024.

DATES: DOE will accept comments, data, and information regarding this request for information no later than 5:00 pm (ET) on February 5, 2024.

ADDRESSES: Responses to this RFI must be submitted electronically at *https://forms.office.com/g/Y0Ss3UFdL3*.

FOR FURTHER INFORMATION CONTACT:

Hayes Jones, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy (EERE), Building Technologies Office, Commercial Buildings Integration, (202) 586-8873, *Hayes.Jones@ee.doe.gov*.

SUPPLEMENTARY INFORMATION:

Background

President Biden called for net-zero emissions, economy-wide, by 2050 and a 100% clean energy electricity sector by 2035.[1] The building sector currently contributes more than one-third of U.S. greenhouse gases. Within the building sector, the Biden-Harris Administration has set the goal to make zero emissions resilient new construction and retrofits common practice by 2030. Accomplishing these goals will require increasing efficiency and expanding clean energy capacity. Zero emissions buildings will plug into a grid that is rapidly becoming cleaner. All buildings, both new and existing, have a critical role to play in achieving a clean energy economy. A clean energy economy advances the goals of tackling the climate crisis, and protecting public health and the environment, including local communities' health and well-being. Executive Order 14096, "Revitalizing Our Nation's Commitment to Environmental Justice for All," directs every Federal agency to advance environmental justice for all, including work to better protect communities with environmental justice concerns from the increasing impacts of climate change. It is also vital that the Administration is implementing Executive Order 14096 and the historic Justice40 Initiative, which set the goal that 40 percent of the overall benefits of certain Federal investments in climate and other key areas flow to disadvantaged communities.

A broadly accepted common minimum definition for a zero emissions building, as well as a pathway for verification, is foundational to efforts by public and private entities to transition the building sector to zero emissions.[2] The intent of Part 1 of the National Definition for a Zero Emissions Building is to create a standardized, consistent, measurable basis for zero operating

[1] *www.whitehouse.gov/climate/*.
[2] *www.whitehouse.gov/climate/ and www.energy.gov/sites/default/files/2023-03/doe-fy-2024-budget-vol-4-eere-v2.pdf.*

emissions buildings. This clear market signal and consistent target is intended to help move the building sector to zero emissions. The definition may serve as a framework that users can achieve through multiple pathways to influence the design and operation of buildings to substantially reduce building sector emissions.

The minimum criteria included to define a zero operating emissions building is a building that is:

- Highly energy efficient,
- Free of on-site emissions from energy use, and
- Powered solely from clean energy.

Part 1 of the draft National Definition for a Zero Emissions Building focuses on operational emissions which have well-established measurement protocols. Reducing the whole life cycle emissions of a building also requires minimizing the embodied carbon of the building, as well as minimizing the impacts of refrigerants. Such emissions are not within scope for Part 1 and may be considered in subsequent parts to the National Definition for a Zero Emission Building.

This definition can be applied to existing buildings and new construction of non-federally owned buildings. This definition is not intended for federally owned buildings, which are governed as a portfolio through statutory and executive guidance.

Part 1 of the draft definition in full, which includes details on the criteria above, is available here: *https://www.energy.gov/eere/buildings/national-definition-zero-emissions-building*. This RFI is intended to collect broader technical input on Part 1 of the draft definition. DOE will consider

responses to this RFI before finalizing version 1.00 of Part 1 of the National Definition for a Zero Emissions Building.

DOE issued a RFI in 2015 for zero energy buildings.[3] While the 2015 RFI was informative, the National Definition for a Zero Emissions Building in this RFI has different parameters.

Purpose

The purpose of this RFI is to solicit feedback from industry, academia, research laboratories, government agencies, and other stakeholders on Part 1 of a draft National Definition for a Zero Emissions Building.

Disclaimer and Important Notes

This RFI is not a Funding Opportunity Announcement (FOA); therefore, EERE is not accepting applications at this time. EERE may issue a FOA in the future based on or related to the content and responses to this RFI; however, EERE may also elect not to issue a FOA. There is no guarantee that a FOA will be issued as a result of this RFI. Responding to this RFI does not provide any advantage or disadvantage to potential applicants if EERE chooses to issue a FOA regarding the subject matter. Final details, including the anticipated award size, quantity, and timing of EERE funded awards, will be subject to Congressional appropriations and direction.

Any information obtained as a result of this RFI is intended to be used by the Government on a non-attribution basis for planning and strategy development; this RFI does not constitute a

[3] RFI for Definition for Zero Energy, Buildings 80 FR 499 (Jan. 6, 2015).

formal solicitation for proposals or abstracts. Your response to this notice will be treated as information only. EERE will review and consider all responses in its formulation of program strategies for the identified materials of interest that are the subject of this request. EERE will not provide reimbursement for costs incurred in responding to this RFI. Respondents are advised that EERE is under no obligation to acknowledge receipt of the information received or provide feedback to respondents with respect to any information submitted under this RFI. Responses to this RFI do not bind EERE to any further actions related to this topic.

Confidential Business Information

Pursuant to 10 CFR 1004.11, any person submitting information that he or she believes to be confidential and exempt by law from public disclosure should submit via email, postal mail, or hand delivery two well-marked copies: one copy of the document marked "confidential" including all the information believed to be confidential, and one copy of the document marked "non-confidential" with the information believed to be confidential deleted. Submit these documents via email or on a CD, if feasible. DOE will make its own determination about the confidential status of the information and treat it according to its determination.

Evaluation and Administration by Federal and Non-Federal Personnel

Federal employees are subject to the non-disclosure requirements of a criminal statute, the Trade Secrets Act, 18 U.S.C. 1905. The Government may seek the advice of qualified non-Federal personnel. The Government may also use non-Federal personnel to conduct routine, nondiscretionary administrative activities. The respondents, by submitting their response, consent to EERE providing their response to non-Federal parties. Non-Federal parties given

access to responses must be subject to an appropriate obligation of confidentiality prior to being given access. Submissions may be reviewed by support contractors and private consultants.

Request for Information Questions

Please reference the linked full draft of Part 1 of the National Definition for a Zero Emissions Building when responding to these questions.

A. Are the draft criteria clear and appropriate for the definition for a zero emissions building? Should any other criteria be considered for Part 1? Please provide specific feedback about this draft definition.
B. Energy efficiency criteria.
    - Should energy efficiency be considered a criteria for the definition of a zero emissions building?
    - If the efficiency of an existing building should be considered, do you agree that requiring energy performance in the top 25% of similar buildings is an appropriate measure of energy efficiency for this definition? (ENERGY STAR® score of 75 or above.) Should it be higher or lower?
        - Are there other benchmarks or approaches that should be considered?
        - For an existing building, is one year of measured energy performance an appropriate requirement for demonstrating efficiency or is another approach appropriate?
        - Are the draft criteria appropriate for single-family homes? Are there other benchmarks that should be considered for single-family homes?

- For new construction, are the draft criteria appropriate? The modeled building performance is at least 10% lower than the energy use according to the latest version of IECC or ASHRAE 90.1 (*e.g.*, model energy code) and the building is designed to achieve an ENERGY STAR score of at least 90 (for eligible buildings). Are there other benchmarks that should be considered?
    - Are the draft criteria appropriate for single family homes? Are there other benchmarks that should be considered for single family homes?

C. On-site emissions from energy use.

- Should there be an exemption allowed for emission producing emergency generation? Are any other exemptions needed?
- Should biofuels consumed on-site be allowed? If so, how?

D. Clean energy generation and procurement.

- Are the clean energy criteria provided appropriate for this definition? Are there other clean energy criteria that should be considered? Should community solar qualify for this requirement? If so, how?
- Should there be a proximity requirement for off-site power used to meet the clean power criterion? If so, how should a proximity requirement be implemented (*e.g.*, regional definition, phase-in, etc.)?

E. Documentation is important for effective implementation.

- Should organizations leveraging the definition be able to determine whether buildings have to meet it annually, one time, or on a different frequency?
- If the definition is extended to single-family homes, what documentation should be required?

- Are licensed professional and third-party certification bodies the appropriate parties to independently verify the documentation that a building has met the definition? Beyond existing government resources such as EPA's ENERGY STAR Portfolio Manager, are there other methods to verify meeting the zero emissions building definition?
- What time frame should be used for greenhouse gas (GHG) calculations (*i.e.* hourly, monthly by year, annually)? Explain how this would be implemented effectively across the market.
- What other verification criteria are necessary to make this definition useful for the marketplace?
- Are there any issues regarding conflict or synergy with regional, state or local energy and climate programs that ought to be addressed?

F. Use cases.

- Is it important for a national definition to cover all building types, including commercial, multifamily, and single-family?
- Are there any other recommendations that would help clarify and improve the definition?
- While Part 1 of the definition focuses on operating emissions, what other areas should be considered in future parts of the definition, such as embodied carbon, refrigerant, and grid interactivity?

Request for Information Response Guidelines

Responses to this RFI must be submitted electronically at *https://forms.office.com/g/Y0Ss3UFdL3*. Only responses to this web form will be accepted. Respondents may answer as many or as few questions as they wish.

EERE will not respond to individual submissions or publish publicly a compendium of responses. A response to this RFI will not be viewed as a binding commitment to develop or pursue the project or ideas discussed.

Respondents are requested to provide the following information at the start of their response to this RFI:

- Company / institution name;
- Company / institution contact;
- Contact's address, phone number, and e-mail address.

Virtual Listening Sessions may be held additional information will be posted at: *https://www.energy.gov/eere/buildings/national-definition-zero-emissions-building*.

Signing Authority

This document of the Department of Energy was signed on [DATE], by Jeffrey Marootian, Principal Deputy Assistant Secretary for Energy Efficiency and Renewable Energy, pursuant to delegated authority from the Secretary of Energy. That document with the original signature and date is maintained by DOE. For administrative purposes only, and in compliance with requirements of the Office of the Federal Register, the undersigned DOE Federal Register Liaison Officer has been authorized to sign and submit the document in electronic format for publication, as an official document of the Department of Energy. This administrative process in no way alters the legal effect of this document upon publication in the *Federal Register*.

Signed in Washington, DC, on

Jeffrey M. Marootian

Digitally signed by Jeffrey M. Marootian
Date: 2023.12.28 22:06:45 -05'00'

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Jeffrey Marootian,
Principal Deputy Assistant Secretary for
Energy Efficiency and Renewable Energy