February 5, 2024

The Honorable Jennifer M. Granholm
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20024

Re: ***National Definition for a Zero Emissions Building: Part 1 Operating Emissions Version 1.00 Draft Criteria, published at 89 Fed. Reg. 1,086 (January 9, 2024)***

Dear Secretary Granholm,

The Green Building Initiative (GBI) is pleased to be able to offer comment on the Department of Energy's *National Definition for a Zero Emissions Building Version 1.00 Draft Criteria RFI*, the proposed standardized definition of zero emissions buildings. We particularly appreciate the effort federal staff have undertaken to meet with and encourage input from a broad base of stakeholders as this proposed definition was developed.

GBI develops and implements the Green Globes green building certification system standards and is a 501c3 accredited standards developer through American National Standards Institute (ANSI). Green Globes is a robust, holistic, and rigorous green building certification system that provides education and certification for all private commercial, public sector, and multifamily building types. GBI certifies buildings and portfolios using the Green Globes certification program globally. In 2024 we are celebrating our twentieth year of operations in the U.S. market.

GBI is continuing to innovate to help support the building sector as we strive to meet our mission to reduce climate impacts by improving the built environment. In summer 2023, GBI introduced its Green Globes Journey to Net Zero Energy and Green Globes Journey to Net Zero Carbon protocols. These programs are currently working through pilot projects including 170 buildings across all U.S. climate zones that will allow us to ensure the broad workability of the programs. They will support building owners with progress reports and data to help them meet their net zero energy and/or carbon emissions goals. We look forward to continuing to play a part in helping the marketplace achieve its net zero and overall sustainability goals.

The Effort to Establish a Standardized Definition is Important

Over the past few years, the U.S. market has moved quickly to try to understand the scope, concepts, technologies, and measurements that will help move buildings to zero emissions. Pushed by government interest, investor demands, and a desire to understand what more we can be doing to

decrease the impact of buildings on the environment, building owners and developers are increasingly engaging on this topic. The rapid uptake in interest and conversation around these concepts has resulted in the growth of a patchwork quilt of understanding about how zero emissions is defined and how it is measured, with jurisdictions, investment firms, corporations and stakeholders often using different metrics and different pathways to claim the achievement of zero.

The effort by the Biden administration to identify a standardized definition of zero emission buildings for the private sector comes at an important time, when many of the leading green building certification systems, like the Green Building Initiative's (GBI) Green Globes, are in the process of updating or launching net zero programs. The effort by the administration will lead to decreased market confusion as the private sector responds to the demand for these programs.

While the administration has no statutory mandate to create and enforce a definition in the private sector, the leadership demonstrated by the administration to attempt to standardize the definition is viewed as a welcome effort by most stakeholders. The federal government imprimatur on a consistent definition will help coordinate the private sector marketplace and provide guidance for many building owners who are new to these concepts.

GBI believes that a final definition of a zero emissions building must be ambitious and forward-thinking, yet at the same time workable and accessible to the broad landscape of the buildings sector. The challenge of addressing the impact of buildings on our environment and communities is a big one, and we believe that every building can be doing something to improve its performance and impact. A federal government-led definition of how to measure zero emissions must be practical in its approach, must recognize market realities, and must understand how to incentivize the market to deploy evolving strategies to improve buildings and processes. The definition cannot only speak to the top five percent of buildings and building owners—it must inspire all building owners to do more. Importantly, the federal government must also recognize and encourage buildings to identify a pathway toward zero emissions. Most buildings in the United States are not yet ready or able to fully achieve zero emissions, but we believe that with the private sector and the federal government working together, we can assist building owners and developers with tools and support to benchmark their building performance and the actions they must undertake on their journey to reach zero emissions.

Responses to the RFI questions (also submitted through the form provided at https://forms.office.com/g/Y0Ss3UFdL3**.)**

A. Are the draft criteria clear and appropriate for the definition of a zero emissions building? Should any other criteria be considered?

Response: GBI believes that the criteria included in v.1.00 of the definition represents the most logical starting point for standardizing a definition of zero emissions buildings. While we believe some portions of the criteria--such as the energy efficiency targets for new construction, and on-site emissions section--require further clarification, the overall topic areas that guide the definition resemble GBI's Green Globes Journey to Net Zero requirements and objectives, and are ones that we believe are the most accessible tools at this time for identifying progress and achievement of zero emissions. While we believe that other areas, such as refrigerants, zero emissions vehicle support systems, and identifying and using low carbon construction materials are important factors to understanding, measuring and achieving zero emissions, we agree with the current logic of focusing directly on whole building emissions and targeting those areas that the broadest portion of the current marketplace can measure and analyze. We expect that future iterations of the definition will expand and refine the definition, bringing in issues like refrigerants as the market catches up in this area, and we look forward to working with the Department as the definition evolves through those future versions.

B. Energy efficiency criteria.

Response:

Should energy efficiency be considered a criteria for the definition of a zero emission building?

Energy efficiency is a key criterion for determining a zero emissions building (ZEB). GBI's Green Globes Journey to Net Zero also starts with minimum requirements for meeting a "highly energy efficient building" definition. Importantly, the marketplace has had several decades to work on developing tools, building products, and methods for achieving greater energy efficiency. That knowledge serves as an important foundation in getting to zero emissions, and it provides an important ability for the marketplace to consistently measure achievement and progress in this area. One of the key tenets of GBI's philosophy is that every building can be doing something to improve its performance and help the environment and community that surrounds it. We believe that it is important that the ZEB definition be accessible and attainable to beyond just the top 1%-5% of buildings and strongly support including energy efficiency as a foundational component of the ZEB definition. In fact, benchmarking where a building is in its reduction of site EUI, and achiving a minimum percent reduction, is the first step in getting on the "onramp" toward net zero, and it is terminology that is used in GBI's Green Globes Journey to Net Zero. Energy efficiency methods, technologies, and concepts have greatly evolved in the past fifteen years, and more and more buildings are able to take advantage of greater energy efficiency as part of planning for the development or renovation

of their buildings. Having the definition focus one of its areas directly on energy efficiency allows many building owners to get a foothold in the effort, identify what it can be doing to improve, and be inspired to move toward zero emissions. Additionally, a focus on including requirements for buildings to be highly energy efficient ensures that buildings who meet the ZEB definition are doing so while truly improving onsite building performance. We strongly support including a meaninful energy efficiency requirement in the definition, while also ensuring that the starting place is achievable to incentivize the majority of buildings to get started toward the ultimate net zero certification objective.

Do you agree that requiring energy performance in the top 25% of similar buildings is an appropriate measure of energy efficiency for this definition? Should it be higher or lower?

For existing buildings, we believe that requiring buildings to demonstrate that they are highly energy-efficient is important. Mandating that existing buildings have an energy performance in the top 25% of similar buildings (or an ENERGY STAR score of 75) is an appropriate target. Some Green Globes programs offered under GBI's umbrella do require ENERGY STAR scores higher than 75, and we anticipate that future iterations of the National Definition will assess whether to increase the minimum ENERGY STAR score as part of pushing the market forward. As the National Definition is launched, we believe that being in the top 25% of energy efficiency compared to similar buildings demonstrates significant achievement in energy efficiency and that this is reasonable requirement for defining the concept of "highly" energy efficient. GBI's Green Globes Journey to Net Zero program can incorporate the National Definition and build upon it to push buildings to go further to attain higher onsite energy efficiency levels while decreasing emissions. However, the goal of the National Definition itself should be to standardize a definition in a way that draws a roadmap for building owners and developers, challenges them, and results in more zero emissions buildings. To do that, it has to be accessible to the marketplace but clear in its goals. Getting a **majority of existing buildings** to take the first step in Green Globes Journey to Net Zero, which aligns with the White House definition of top 25% for energy efficiency, is a worthy objective and one that can be built upon.

As we work to create progress in attaining zero emissions, we need to continue supporting the broader marketplace to move forward on holistic sustainability and energy efficiency goals, and we hope that the Department and the administration will be proactive about not only supporting this definition—which will define elite buildings within the next decade—but also supporting the foundational work of moving all buildings forward on a holistic sustainability and energy efficiency pathway. Many building owners and developers are just beginning to understand what steps will be needed to achieve zero emissions. While they may not be able

to achieve an ENERGY STAR score of 75 today, they can each be doing something to improve their performance and impact on the built environment and our communities.

For an existing building, is one year of measured energy performance an appropriate requirement for demonstrating efficiency or is another approach appropriate?

GBI believes that one full year of measured energy performance is an appropriate benchmark for determining efficiency of existing buildings when there is a national benchmark available. GBI's Green Globes programs require between 12-24 months of measured energy performance to determine compliance with Green Globes criteria. Similarly, most ISO standards require 12-months of continuous data to create a benchmark. We believe that the National Definition should align with ISO standards whenever possible to avoid confusion in the marketplace. Having said this, benchmarking progress against data from a prior recent year where data is comparable and also at least 12-months of consecutive data is most informative about what is happening at each building individually. GBI's Green Globes Journey to Net Zero program documents progress in reducing both site EUI and CO2e against a baseline year where such data is available.

Consistency in areas such as this is key to creating a definition that can be widely adopted and implemented by certification bodies like GBI, and other programs. It is vitally important that the National Definition be strong but accessible in a way that encourages existing buildings to undertake the effort and expense to work toward zero emissions. We believe that the draft creates an overall excellent starting point for standardizing these concepts. We also strongly suggest that the Department and the White House also consider encouraging the marketplace to support interim, or continuous improvement, systems or programs that will encourage buildings to begin the journey toward making future improvements to fully meet the ZEB definition. Programs like GBI's Green Globes Journey to Net Zero and others that encourage continuous improvement toward net zero objectives will help identify what owners can do to meet the ZEB definition, while very-high performing buildings will be able to differentiate themselves through use of these private sector programs and make more rapid progress to meet the definition. Programs that encourage and measure continuous improvement will be an essential for existing buildings to identify their progress toward zero emissions. GBI strongly feels that over the next decade(s) the bulk of the work related to lowering emissions from buildings will be in assisting building owners and developers as they assess their buildings and supporting them in the development of plans to move closer to 100% reductions in emissions. For these reasons, support provided by third-party programs that incentivize continuous improvement will be vital to the eventual success of the National Definition.

For existing buildings that are not able to obtain an ENERGY STAR score, the draft definition targets a measured whole building energy use intensity (EUI) of at least 35% better than the median EUI. We appreciate that the definition is proactively recognizing, and providing a target, for those building types that are not yet able to obtain an ENERGY STAR score. GBI believes that the final National Definition should identify against what data the median EUI is being determined, to ensure consistency among those who implement the definition. We recommend that the Department consider utilizing the data in the Commercial Building Energy Consumption Survey (CBECS) as one option for determining the median EUI. (https://www.eia.gov/consumption/commercial/) We understand that the CBECS may not be able to fully support all of the needs of some categories of buildings due to data gaps but believe that it can provide a good starting point for identifying the median EUI in this first launch of the definition. When it undertakes an effort to update the National Definition in future years, the Department should include a review of how the median EUI is determined to investigate whether other datasets are better able to support these determinations. Additionally, the final definition should clearly identify whether the median EUI target is based on site EUI or source EUI. GBI supports clearly identifying site EUI, as it contains the measurement to the operations of a specific building and presents the fairest opportunity to measure EUI that is within the control of the building owner.
Of note, we encourage the Department and the White House to continue working on incentives and promoting solutions that will assist building owners to obtain more consistent access to the energy and emissions data of their tenants. This issue continues to come up frequently in projects. Often, building owners are eager to work on improving their energy and emissions performance but hit stumbling blocks when trying to get the 12-months, or more, of data that they need to show a full picture of their building's performance because they cannot access the data from their tenants' energy, water, and emissions.

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 the IECC or ASHRAE 90.1 and the building is designed to achieve an ENERGY STAR score of at least 90?

While the task is also great for new construction, realistically new construction presents a somewhat easier challenge. Many considerations and factors, from costs to local regulations, etc., remain a concern in new construction projects. However, because of the nature of new construction it is easier to incorporate plans to develop buildings in a way that will meet the definition, or a certification body's requirements. The National Definition draft targets modeled building performance of at least 10% or better than the most recent model energy code (i.e., IECC or ASHRAE 90.1, or designed to achieve an ENERGY STAR score of at least 90). We support holding new construction buildings to a higher standard, though we have some

concerns about the workability/feasibility of this provision, as written, in the marketplace. For example, it is anticipated that the next version of the IECC code (2024) will be released by the end of Q1 2024. Under the National Definition as written, it appears that all new construction projects would have to be 10% better than the IECC 2024.

- First, it is our understanding that it takes some time to develop reliable models when a new code is released. This makes it difficult for new construction projects to plan out their energy targets for a period of time after a new model code is published, yet the plans and design of the new construction projects must move forward on their timelines.
- Second, we have heard concerns that a requirement of minimum 10% beyond the most recent model code may automatically discourage building developers from attempting to meet the National Definition due to the potentially significant costs associated with trying to predict how to overreach the most recent model code.
- Further, we are also aware of concerns about how compliance with going beyond new model codes will be determined in states where the code officials are using an older version of the code, and not trained or experienced with a model version that is not adopted in their locality.
- We suggest that the Department consider allowing for an achievement above either the current model code, or, above the last, most recent code. For example, one idea may be developing a tiered system that allows a building that has exceeded the last, most recent code by 15%, or, a building that has exceeded the current model code by 10%. We believe that it is important to think through the reality of how projects are designed and the timelines that they use. Allowing projects to have a choice between a current model code and the most recent (previous) code may encourage new construction projects to truly look into attempting to meet the National Definition because it allows the project teams to rely on code versions that are more widely understood in the marketplace, and that have more widely agreed-upon models.
- Additionally, under the *Inflation Reduction Act*, programs like the 179(d) tied requirements to the approved code recognized by both the Department of Energy and the Treasury Department. In that case, after some alignment, projects seeking to make use of the 179(d) must (fully by Jan 1, 2026) meet targets based off of ASHRAE 90.1 (2019). Such a target helps promote use of the program by using a widely-adopted and understood baseline.

New Construction projects should be designing to meet net zero goals, and it may be useful to consider offering some options in tiered levels to provide flexibility by sliding the improvement targets based on a couple of different baseline measurement options.

C. On-Site emissions from energy use.

Response:

Should there be an exemption for emission producing emergency generation? Are any other exemptions needed?

First, we applaud the draft National Definition's specific recognition of the importance of exempting emergency energy generation from the definition's scope. We want to encourage buildings of all types to attempt to achieve zero emissions, and the allowance of an exemption for emergency generators will provide an opening for many more buildings to work toward meeting the definition. Improved building performance is vitally important to GBI's mission, but we also recognize that in improving the building's performance, we cannot ignore the building's purpose. Many buildings in our communities must have consistent access to energy during weather and other emergencies that may shut down the electrical grid. We believe that this National Definition cannot work without the commonsense acknowledgement of emergency power generation as an exempted component in determining whether a building has met the National Definition.

For clarification, it is important that the Department specify in a final definition exactly what this exemption means. Does the exemption for emergency generation mean that a building that has emissions-producing emergency generation can still be eligible to meet the minimum requirement in this area, because that emergency generation will effectively be ignored (i.e. it is a check-the-box exemption that simply means you aren't excluded from trying)? Or, does the exemption mean that emissions-producing emergency generation will not be counted in any way in calculating your emissions and whether you have hit 'zero?' Or, is it both? As a certification organization, we would appreciate a better understanding of the scope of the exemption.

If the Department's intention is that the exemption is only to allow a building to meet the minimum requirement and not to disregard the emissions calculation itself, we are wondering whether the Department has considered allowing for a very limited exemption for carbon offsets to cover emissions that come from emergency power generation? Emissions-producing emergency generators are a necessary component of many buildings and support health and safety requirements. GBI supports ensuring that having an emissions-producing emergency generator does not preclude a building from attempting to meet the National Definition. However, we do note that frequently emergency generators produce enormous emissions when they are doing their jobs as intended, at a level that can be argued is too high to ignore when trying to calculate whether a building can say they have achieved "zero emissions." It may be worthwhile to consider at least allowing buildings with high emissions from emergency power generation to purchase structured and verified carbon offsets to cover those emissions when calculating their achievement of "zero emissions" or "net zero."

Should biofuels consumed on-site be allowed? If so, how?

We recommend that the National Definition recognize biofuels in some cases, with guidelines around how they are weighted and what types of biofuels are prioritized. Biofuels themselves represent an excellent innovation, though their development and manufacture itself produces carbon emissions. Biofuels should be assessed as avoided emissions from not using diesel or natural gas and the measurement of avoided emissions can be used to balance the emissions that come from the bio-fuel use. Preference can be given to bio-fuels that are in secondary use, derived from feedstocks such as from used cooking oil or other bio refuse. An example of a growing area of secondary use bio-fuels is Sustainable Aviation Fuel. Bio-fuels from secondary use are key, as using bio-fuel from—for example—regular corn feedstock may not deliver the same avoided emissions and may have other impacts. (https://www.epa.gov/environmental-economics/economics-biofuels#:~:text=Second%20generation%20biofuels%2C%20or%20cellulosic,use%20algae%20as%20a%20feedstock.) (Mosnier, A. P. Havlik, H. Valin, J. Baker, B. Murray, S. Feng, M. Obersteiner, B. McCarl, S. Rose, and U. Schneider. 2013. "The Net Global Effects of Alternative U.S. Biofuel Mandates: Fossil Fuel Displacement, Indirect Land Use Change, and the Role of Agricultural Productivity Growth." *Energy Policy* 57 (June 2013): 602-614.)

General thoughts on the on-site emissions portion of the definition.

Regarding the elimination of on-site emissions from energy use: First, GBI agrees with the draft National Definition's specific determination to focus this provision on operational energy use. To encourage the adoption of the definition and its wide public use, focusing the definition directly on whole buildings and the energy usage that they can control means that more buildings will be able to try to meet the definition, and that it will be easier for the private sector to truly measure buildings against one another. We believe that emissions from construction materials and other parts of the supply chain are important and that as a long-term goal we must as a society work to reduce or eliminate those emissions to the best of our ability. However, for purposes of a standardized National Definition of zero emissions ***buildings*** we strongly agree that the provision requiring zero scope 1 on-site emissions from energy use is the right starting point. We do remain significantly concerned that very few buildings, especially in colder climate zones, will be able to meet the draft National Definition in the near-term because of the requirement for no onsite emissions from energy. GBI's Green Globes Journey to Net Zero programs will be working to align with the White House definition, with some initial extra guidance, so that we can assist owners as they work on continuous improvements and move each year closer toward fully zero, which will have them preparing

for the evolution and adoption of future technologies, processes, and requirements to fully electrify their buildings. We anticipate that it will take a couple of decades until we see consistent, matter-of-fact electrification of existing buildings across most climate zones in the United States, as many factors that will allow this type of transition are out of the control of building owners. This provision in the draft National Definition, while important to identifying a truly zero emissions building, likely means that it will take many years before the U.S. sees a significant number of buildings who can claim to have met the definition. We support this as a goal toward identifying zero emissions buildings, but we realistically understand that its inclusion greatly extends the timeline by which we will be able to see widespread success in meeting the definition in many parts of the United States. GBI, like many others, is eager to greatly increase the numbers of zero emissions buildings and we would love to see them coming online as soon as possible. Encouraging existing buildings to electrify will take many years to accomplish. Because of this understanding, GBI's Green Globes Journey to Net Zero program works with building owners and developers to help them identify how close they are to zero emissions objectives and what more they need to do to get 100% achievement of net zero. Additionally, the Journey program works with them to re-assess progress and certify when they achieve compliance with highly energy efficient minimum requirements plus 100% reduction in emissions. We look forward to GBI's Green Globes Journey to Net Zero program being recognized as a program supporting the achievement of the administration's Zero Emissions Buildings National Definition.

D. Clean Energy Generation and Procurement.

Response:

Are the clean energy criteria provided appropriate for the definition? Are there other that should be considered? Should community solar qualify for this requirement? If so, how?

We believe that the clean energy criteria provided in the draft National Definition are appropriate for the launch of the v.1.00 definition. We particularly support the definition's allowance of both on-site and off-site clean energy. It is extraordinarily difficult for many buildings, especially in urban areas, to successfully generate clean energy entirely on-site for obvious reasons such as lack of available space for enough solar panels or wind generation on building roofs. We do believe that the definition should be clear on which forms of clean energy count toward meeting the definition. For example, some states may not allow certain types of clean energy to count toward state requirements (i.e. nuclear), so providing the market with a specific list of that which counts toward the draft National Definition will be helpful. This will also be helpful for certification bodies who want to incorporate the National Definition into their certification programs. Certification programs must be able to undertake

certification projects in every state. Understanding that some states may have different state-based definitions of clean energy, it is important that the federal definition is clear. We suggest looking at the list of energy sources contained in EPA's eGRID, (https://www.epa.gov/egrid/power-profiler#/) that specifically calls out non-fossil sources of fuel that are commonly used to generate electricity across the United States. Should funding become available in the future, the Department could consider creating a task group or advisory panel that could specify energy sources, associated emissions factors, and calculation methods, potentially using the open data from the LCA Commons, or a similar source. Such a group could consider tying these factors to life cycle assessment (LCA)-based inventories in order to harmonize them with whole building life cycle assessment work.

We strongly suggest that the Department not release a final definition without specifying which clean energy sources can be used to meet the definition. Without specification, the market may fragment on what is and is not allowed. Inclusion of a wider range of clean energy sources is encouraged at this early stage.

Community solar programs and incentives are an emerging opportunity for building owners and developers to further their zero emissions goals. GBI supports the evolution of community solar programs; however, we recognize that at this time there is still a gap in understanding of how to ensure that commitments made through community solar programs—and claimed by buildings as part of an assessment of net zero goals—are truly fulfilled in the out years following a building's certification. While we anticipate that these issues can be worked out and resolved in the future, we believe that it is appropriate for this first launch of the National Definition v.1.00 that community solar incentives be discussed as part of the next version of the definition, and that the Department not attempt to guess at how to resolve the issue in v.1.00.

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?)

We applaud the draft National Definition's inclusion of Renewable Energy Credits (RECs) as an allowable component in meeting the definition. We strongly believe that RECs are a vital component to making the definition workable in the current marketplace. Without the allowance of RECs in this near-term, we believe almost no buildings would be willing or able to attempt to meet the definition. We support the draft National Definition's recognition of multiple guidelines for identifying qualified RECs. While GBI's Green Globes Journey to Net Zero programs have not previously included acknowledgement of all of the guidelines included in the draft National Definition, we recognize the importance of offering some flexibility to

ensure that RECs are fairly identified. However, we caution that in the future it will be important to be cautious about continuously adding additional sets of definitions and guidelines for RECs. It's incredibly important that the marketplace and certification bodies have confidence in the RECs that are presented as part of the clean energy commitment of each building or portfolio, so we recommend reliance on guidelines. One standardization system that the Department can consider is the methodology offered by the nonprofit American Center for Life Cycle Assessment (ACLCA). This standard was developed through consensus and public comment, and entities such as EPA were involved in its development. https://aclca.org/wp-content/uploads/2022-ACLCA-PCR-Open-Standard_Addendum_Quantifying-Renewable-Electricity-Instruments-in-EPDs_FINAL_061323.pd .

At this time, GBI does not support including a local proximity requirement for off-site power generation/RECs. While we would like to be able to say that a localized requirement for off-site power generation/RECs should be an obvious provision, the true reality in the current marketplace is that it is simply not possible as certain utilities are not offering RECs. We repeatedly see evidence of the challenges building owners and developers have in trying to obtain off-site power and RECs, including the inability to access RECs in their own region because the grid operator has captured all of the available RECs to meet their own state reporting requirements. There is great inconsistency among different utilities about how this is handled and what is made available. If a proximity requirement were included in v.1.00 of the National Definition, it will quickly douse the ability of building owners and developers to even attempt to comply with the definition. We strongly feel that, eventually, a proximity requirement will become a commonsense inclusion in the National Definition, but that an attempt to include it in v.1.00 will be counterproductive at this time. We strongly suspect that the market will continue to evolve towards a more manageable and logical process for identifying and providing off-site energy/RECs to buildings and that at such time in the future it will make sense to start phasing in a proximity requirements. For now, we recommend that RECs identified as part of meeting the National Definition be required to demonstrate that they come from within the United States, and not tied to a specific region or local requirement.

As the definition relates to carbon offsets, in the near-term we remain concerned that a total ban on the recognition of carbon offsets may make it close to impossible for buildings in some of our major cities who rely on district steam to attempt to meet the definition. Today, there is no system of RECs that will provide support for district steam systems. For buildings in many cities such as New York and Chicago to participate in meeting the National Definition, the Department should consider allowing limited carbon offsets to cover the emissions from district steam systems. It is important that the Department identify guardrails around which types of carbon offsets could be used as part of meeting the definition. It's our understanding that the Securities and Exchange Commission (SEC) is currently working on a rule that would

require standardization and additional disclosure/transparency around carbon offsets. We believe there is benefit in supporting this type of standardization around carbon offsets, and again, allowing a very limited opportunity for carbon offsets to be used for buildings in cities that are reliant on district steam. (https://www.sec.gov/news/statement/crenshaw-climate-statement-032122#:~:text=Carbon%20offsets%20are%20credits%20for,from%20its%20operations%20and%20business.)

E. Documentation is important for effective implementation.

Response:

Should organizations leveraging the definition be able to determine whether buildings have to meet it annually, one time, or on a different frequency?

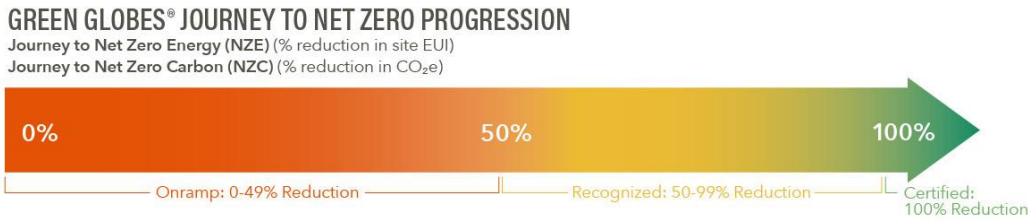
We support allowing some flexibility when it comes to how frequently buildings need to meet, re-assess, or re-certify their alignment with the National Definition, and we believe that the organizations who incorporate and identify when buildings meet the definition should have the ability to tailor the re-assessment and review cycles in a way that works best with their overall programs. However, we do believe that to show value in the long-term, and to be able to continuously claim that a building has met the definition, buildings should be required to undertake a periodic re-assessment cycle. It should not be a one-time, permanent determination. There are many consequential and significant factors that influence how and when buildings undertake further upgrades or renovations that would keep their buildings on track, or further improve their performance. GBI's Green Globes Journey to Net Zero programs ask buildings to be re-assessed by GBI every three years. We feel that three years provides a good interval of time to allow the building to fully operate and review performance of mechanical systems, for example, while also providing enough of a span of time for building owners to plan for and investigate additional advancements and upgrades. We also feel that the National Definition should have some type of guardrail, perhaps, "no longer than every five years," that is flexible enough to allow certification systems to identify what works best in the marketplace. For purposes of transparency, we also believe that when buildings meet the definition, the recognition that they are provided should clearly identify the year in which the definition was met. In the case of Green Globes, we will also clearly identify the year at which the building should go through re-assessment. Having a routine re-assessment cycle will also allow certification organizations to incorporate future updates of the National Definition into these re-assessments, ensuring that buildings are continuing to make progress as technology and market adoption of materials, measurement, and processes evolve.

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 ENERGY STAR Portfolio Manager, are there other methods to verify meeting the zero emissions buildings definition?

As an independent third-party certification and standards-development body, GBI is perfectly situated and equipped to assist in amplifying and maximizing the use of the National Definition as part of our Green Globes Journey to Net Zero programs. This year 2024 is our 20th year offering rigorous and holistic sustainability and green building certification in the United States. We strongly believe that bona fide, recognized certification systems are well-equipped to assist building owners in meeting the National Definition as part of the net zero certification programs many have already developed. GBI anticipates that a final National Definition will be aligned with our net zero certification programs, and that we will be able to identify Green Globes Net Zero certified projects that meet the National Definition. Our Green Globes assessment process requires that an independent, third-party Green Globes Assessor (GGA) perform the analysis of each project to confirm compliance with program requirements and criteria. We believe that third-party, independent certification bodies are key to ensuring the validity of whether buildings have met the National Definition and that the definition itself will assist in providing consistency across the major certification systems who provide validation of meeting the National Definition as part of their certification processes. Third-party certification bodies will be key to amplifying the understanding and use of the National Definition.

Importantly, GBI's Green Globes Journey to Net Zero programs are designed to offer continuous support and review of buildings, identify where they are on the "journey" to fully zero, and support projects as they work towards 100% achievement of net zero energy and/or net zero carbon emissions. (https://thegbi.org/journeytonz/) Our programs recognize buildings and portfolios that have achieved at least 50% of progress toward fully zero energy and/or carbon emissions and we provide detailed analysis and reports of what additional things buildings can do to move closer to 100% achievement. Once buildings are at 100% they are eligible for full Green Globes Net Zero certification. While 100% achievement is always our goal, GBI strongly believes that the marketplace currently needs support from certification systems to identify where they are, and how to make progress. Our Journey programs will assist them in doing that, and we hope, provide the kind of incentive and support that will move them all the way to 100% achievement, certification, and alignment with the National Definition. We believe that it is very important that the final National Definition recognize that for most buildings in the United States, interim steps will be necessary to reach the Zero Emissions Building goal. GBI's Journey to Net Zero programs' recognition phases are one example of the interim measures that will be necessary before most buildings achieve 100% compliance and certification. Of note, we believe the EPA's ENERGY STAR program's NextGen

program will also serve as an important step in assisting buildings as they move toward zero emissions and GBI is working to ensure that our Green Globes Journey to Net Zero programs also identify and incorporate key elements of the NextGen program so that we may assist our clients identifying compliance.



Currently, GBI is concluding a pilot of the Green Globes Journey to Net Zero program, with over 170 buildings participating. We anticipate that the results of the pilot will provide us with significant amounts of data that will assist us in identifying market trends that will help us better educate building owners about how to achieve zero emissions buildings and meet the National 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.

Under the GBI Green Globes Journey to Net Zero Carbon program, we track and analyze GHG calculations using a monthly by year (minimum 12 months of data, as required by most GHG ISO standards) process that we believe provides us with a clear picture of a building's performance and impacts across all weather conditions in a year. This requirement is, we believe, accessible to the most buildings, while also providing the kind of data we need to ensure rigorous compliance with the requirements of our program. Additionally, we have found that all building types are able to provide this information. The ability of all building types to participate in our Journey to Net Zero programs is a key concern of ours, as we do not want to create a series of requirements that effectively only support, for example, office buildings. We appreciate the draft National Definition's avoidance of over-prescribing specific processes of measurement because we believe many more buildings will work to meet the definition if the methods avoid one-size-fits-all requirements that we know discourage many projects from moving forward because of the natural variances in buildings, building purposes, climate zones, and marketplaces. To maintain consistency and avoid market confusion, we suggest the department consider aligning GHG calculations with the same data windows that are required in ISO 14021 (https://www.iso.org/standard/66652.html) and ISO 14026 (https://www.iso.org/standard/67401.html.)

What other verification criteria are necessary to make this definition useful for the marketplace?

We believe that the v.1.00 definition appropriately addresses the key, most impactful, components of measuring and identifying zero emissions buildings. And again, we support the definition's focus on measuring the performance of the building itself. This targeted focus will help the market level-set criteria and the requirements of certification programs. The National Definition will provide building owners and managers with incentives to work toward the goals because the goals are aligned around factors that they can largely control—recognizing that items like the elimination of all on-site emissions from energy use may take many years to successfully achieve for many buildings. We do believe that when the Department undertakes future reviews of the definition that it will be important to look at items like embodied carbon in materials, impact of refrigerants, and grid interactivity to determine if tools in the marketplace have evolved to allow wide adoption of methods to identify, measure, and report in a way that can be analyzed and captured as part of broader certification programs like GBI's Green Globes Journey to Net Zero.

Are there any issues regarding conflict or synergy with regional, state, or local energy and climate programs that ought to be addressed?

We are not aware of any significant conflicts between the draft National Definition and regional, state, or local programs. The White House has undertaken a widely-supported effort through its National Building Performance Standard Coalition to bring together many municipalities to work toward standardizing goals and requirements. We believe that this entity is well-placed to amplify the National Definition in a way that encourages those government entities to align their methods of measurement in the same way. We do know that there are states such as California, for example, that may define concepts like allowable "sources of clean energy" differently than the federal government. For example, it is our understanding that California views hydropower and nuclear energy differently when it comes to defining "clean energy." This makes it all the more important that the final National Definition, as we previously mentioned, provide some specificity around what sources count as "clean" for purposes of meeting the definition.

Importantly, we suggest that future iterations of the definition coordinate with the EPA's EcoLabels program to ensure synergy as that program expands the ability of the marketplace to help identify low-embodied carbon construction and building products, which is a key component in the future to eliminating all building-related emissions.

F. Use cases.

Response:

Is it important that the national definition cover all building types, including commercial, multifamily and single family?

It is very important that the National Definition cover as many building types as feasible. As a certification organization and standards developer, we believe that consistency among different building types will allow for better alignment with the National Definition, decrease marketplace confusion about the definition in general, and allow third-party certification bodies and municipalities to more seamlessly incorporate the definition across the private sector marketplace. As a leading certifier of multifamily properties, GBI recognizes that multifamily projects are challenged with obtaining whole building utility data. However, the National Definition should apply to these projects and buildings as alignment with state and local requirements will continue to incentivize greater access to whole building data. But we are also aware that the Department of Energy already has a Zero Energy-Ready Homes (ZERH) program that has its own requirements for residential projects. We would suggest looking further into the ZERH to determine whether it is necessary to incorporate the National Definition for those projects, or whether the ZERH should prevail to avoid creating confusion in that portion of the marketplace. We believe that some *Inflation Reduction Act* programs are tied to compliance with the ZERH, which depending on how they align, may discourage that part of the industry from wanting to work to meet the National Definition.

Are there any other recommendations that would help clarify and improve the definition?

As a third-party certification body and standards developer, GBI believes that a final National Definition can be incorporated in GBI's Green Globes Journey to Net Zero certification process with additional guidance. Incorporation of the definition will allow GBI with to not only certify projects who have met the 100% achievement requirements under our Energy and Carbon reduction programs, but also provide clients with analysis and assurance of having met the National 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?

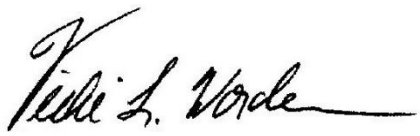
As previously mentioned, we believe that these concepts should all be evaluated and considered in future iterations of the definition and that doing so will allow the Department to analyze how well and how widely the marketplace has evolved accessible tools to measure and analyze these concepts in a way that will allow the broadest possible universe of building owners and developers to identify real and sustainable progress. Refrigerants, for example, is an area where we clearly see that there is a lack of consistent methodologies and access to data. Even Portfolio Manager cannot help track refrigerants today. Yet we do see a glimmer of progress, with some buildings in limited circumstances able to provide refrigerant data that

contributes to their understanding of their progress toward fully zero emissions. We believe that the market will evolve to make this more common, and because of that it presents an important future opportunity to evaluate its inclusion in the next iterations of the National Definition.

Conclusion

We appreciate this opportunity to provide input on the draft of the National Definition of Zero Emissions Buildings and we look forward to continuing to support this effort and the implementation of the definition in the future. For additional information, or if you have any questions, please contact Jenna Hamilton, Vice President, National Affairs at hamilton@thegbi.org.

Sincerely,



Vicki L. Worden, President & CEO

CC: White House Office of Domestic Climate Policy