

Written Statement of  
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House Committee on Transportation and Infrastructure,  
Subcommittee on Economic Development, Public Buildings, and Emergency Management

Hearing  
“Efficiency and Resiliency in Federal Building Design & Construction”

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Chairman Titus, Ranking Member Meadows, and Subcommittee Members,

I am greatly honored to join you today on behalf of the U.S. Green Building Council (USGBC). USGBC, best known for the Leadership in Energy and Environmental Design (LEED) green building rating system, has been engaged with the Federal agencies, including the U.S. General Services Administration (GSA), throughout our history. We are pleased to share this morning our observations on the significant progress that has been made in Federal high performing buildings over the past decade. We appreciate the opportunity to look forward as well, and comment on ways that the GSA and Federal agencies can have even greater impact, saving money and resources, while providing high performing spaces to support productivity and wellness of federal employees.

In sum, GSA is a leader in implementing energy and water efficiency across the Federal buildings portfolio it manages. Through construction and leasing policies, deployment of performance contracting and other public private partnership models, and use of third party certification, GSA has saved many millions of dollars. GSA has reported, for example, that sustainable building standards helped GSA avoid more than \$250 million in energy and water costs from 2008 to 2014.<sup>1</sup>

The significant progress that has been made also serves as a guide to opportunities for further improvement including energy, water, and cost savings. Federal agency goals for key metrics such as energy use, water consumption, renewable energy, and efficiency investment such as performance contracting, have been an important touchstone and could be brought forward to ensure all agencies are engaged in and benefit from efficiency. Federal energy efficiency performance standards are another area where updating could help increase federal savings. Areas for strengthening and expanding Federal building sustainability and cost savings include enhancing resiliency activities; updating key contracting provisions; and improving energy efficient leasing implementation. Ensuring adequate continued funding for the GSA Office of Federal High-Performance Buildings, and for the Federal Energy Management Program (FEMP) within the Department of Energy, is also critical to continue making progress in providing high-performing, cost-saving buildings.

#### USGBC

USGBC is a nonprofit organization dedicated to transforming the way buildings and communities are designed, built and operated, enabling an environmentally and socially responsible, healthy, and prosperous world. We are best known for our successful Leadership in Energy & Environmental Design (LEED) green building certification system. In addition to LEED, we leverage our education, credentials, events, communications, and policy advocacy activities to drive sustainable and high performing buildings, campuses, and communities that improve the quality of life for all. Through these programs, we support building owners, operators, and tenants from the private and public sectors in meeting their goals

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<sup>1</sup> GSA, [2015 Strategic Sustainability Performance Plan](#).

for spaces that save energy and water, support occupant health and productivity, reduce impacts on the climate, and incorporate resilience.

USGBC has more than 9,000 business, organizational, and government members. Our business membership includes the full range of the building sector, including builders of all sizes, product manufacturers, professional firms, and real estate owners and firms, as well as health care, major retail corporations, hospitality, financial services and insurance companies. More than 200,000 individuals around the globe have LEED credentials including LEED AP and Green Associate.

## LEED

Since its establishment in 2000, LEED has become the most successful voluntary, consensus-based private market-driven high-performing green building program in the country, with more than 64,000 commercial and institutional projects that have achieved LEED certification and another 49,000 projects underway. In addition, there are more than 394,000 residential units currently certified and many more registered.<sup>2</sup> LEED has bolstered the U.S. construction sector and created new industries that have converged into a multibillion dollar domestic high-performing building industry.

LEED gives building owners and operators the tools they need to have a measurable effect on their buildings' performance, with a whole building, life cycle approach driving achievement of sustained savings. LEED works by establishing prerequisites and optional credits in key categories including integrative process, location and transportation, sustainable sites, water, energy, materials and resources, and Indoor environmental quality, as well as rewarding innovative strategies and attention to priority regional issues. Achieving LEED certification requires satisfying all prerequisites and earning a minimum number of credits. The levels of certification reflect the number of points earned: Certified (40–49 points), Silver (50–59 points), Gold (60–79 points), and Platinum (80+ points).

To reflect building industry best practices, LEED is updated following processes that ensure the highest levels of openness, inclusion and transparency. LEED committees are populated by a diverse group of technical and market experts who donate their time and expertise to advance the system.

The most recent full update to LEED is known as LEED v4. Adopted after countless hours of volunteer time, consideration of public review comments, and a rigorous consensus process, LEED v4 offers a performance-based approach to measurable results and ongoing operations. During LEED v4 development, USGBC conducted six public comment periods and responded to more than 22,000 public comments. The final draft of LEED v4 was approved by 86% of the consensus body members.

LEED v4 builds on the progress of previous versions, raising the bar for minimum performance and adding new optional credits in every category. LEED v4 was designed to address the unique needs and challenges of a variety of different building and space types. It currently includes 21 different market sector adaptations. Projects such as warehouses and distribution centers, data centers, laboratories, hotels and motels, existing retail, existing schools, existing multifamily, and mid-rise residential buildings are specifically addressed within LEED. The LEED rating system addresses new construction and major renovation, and existing buildings. Because optimizing operations on an ongoing basis is critical to achieve savings and benefits, projects are encouraged to recertify periodically; USGBC has invested in systems to support and streamline recertification.

LEED seeks to engage building projects with industry best practices and deliver superior outcomes for the built environment. LEED's flexible, credit-based structure allows project teams to pursue a tailored benefit package that best suits the project's location, climate zone, building type, budget, and market

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<sup>2</sup> USGBC data, as of May 2019. The commercial and institutional category includes all non-residential building types and some mixed use and high rise residential.

positioning; while minimum prerequisites across all categories assure threshold performance. Third-party review and verification offer accountability and transparency for performance outcomes.

Complementing LEED, we recently introduced LEED Zero certifications, which recognize buildings that have achieved net zero carbon, net zero energy, net zero water, or net zero waste. LEED Zero is a performance-based certification indicating the achievement of net zero in operations over a 12-month period.

### Business Case

LEED has transformed how the building industry and the public consider sustainability in real estate. The private sector has embraced LEED in recognition of the strong business case for green building. It has been demonstrated through many studies that green buildings can save money on a life cycle basis, as energy and water savings pay back quickly and add value. Beyond these direct utility savings, studies have documented a number of financial benefits for businesses, and supported the proposition that LEED-certified buildings with lower operating costs and better indoor environmental quality are more attractive to many corporate, public and individual buyers.

Businesses understand that their biggest investment is in the human resources that work in those buildings. By providing spaces that are comfortable, high air quality that allows focus and high cognitive function, and features such as daylight and ample ventilation, employees are poised to be more productive and healthier than those working in conventional buildings. High quality, health-supporting buildings help attract talent as well; since we spend about 90 percent of our time indoors, people naturally want to feel confident interior spaces are good for them. These considerations can translate into increased sales and rent prices and improved lease-up rates for green buildings.

For example, in one Department of Energy (DOE) funded study, a researcher from the Wharton School reviewed over 50 studies examining the impact of energy efficiency and green labeling on building valuation and completed a “metastudy” of the literature.<sup>3</sup> The report provides evidence of substantial price and rent premiums that are associated with sustainable buildings in the commercial sector. The team reviewed studies that investigate the impact of certifications such as LEED and ENERGY STAR using state of the art methodologies, based on econometrics, combined with current real estate industry data to identify the relationships between green building practices and value. On average, these econometric studies establish value premiums of 6% for rents and 15% for prices for buildings with LEED and Energy Star labels. The research found evidence of multiple economic benefits of LEED and ENERGY STAR, such as improvement in net operating income (NOI) by both (1) reducing energy costs (which represent 25% of the operating expenses) and (2) increasing rents by reducing vacancy and by increasing a tenant’s willingness to pay higher rents due to a higher worker productivity and a desire for “green” space and the reputational advantages; and a decrease in the Cap Rate, indicative of lower risk.

Another study of some 26,000 office buildings, found that certified office buildings, on average, continue to have higher rental, occupancy and pricing levels.<sup>4</sup>

### Resilience

High-performing, efficient sustainable buildings are the first step towards resiliency, since they require less energy and water to maintain operations, and reduce stress on local grids and water infrastructure.

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<sup>3</sup> Susan Wachter, Valuing Energy Efficient Buildings (2013), supported by the Consortium for Building Energy Innovation (CBEI) sponsored by the U.S. Department of Energy, <http://cbei.psu.edu/wp-content/uploads/2016/07/Valuing-Energy-Efficient-Buildings.pdf>

<sup>4</sup> Nils Kok and Rogier Holtermans, of the University of Southern California. "On the Value of Environmental Certification in the Commercial Real Estate Market (date) <https://lusk.usc.edu/research/working-papers/value-environmental-certification-commercial-real-estate-market>.

LEED projects are rewarded for incorporating such resiliency-supporting features as the use of durable materials, careful site selection, rainwater collection, demand response, grid islanding, maximal energy efficiency, on-site renewable energy generation, and more. These approaches can help not only LEED buildings become more resilient, but also their surrounding communities.

A 2018 study by the University of Texas at San Antonio focused on how LEED v4: New Construction specifically addresses building resilience.<sup>5</sup> The study, presented at the National Institute for Building Sciences (NIBS) Building Innovation Conference, identified 14 types of natural disasters relevant to the built environment, and then analyzed how LEED v4 credit requirements enhance building resilience against these adversities. The study concluded that LEED v4 credits and prerequisites provide a multitude of opportunities to enhance resilience. Specifically, the study found that 64.8% of all credits contribute to increased resilience against flooding, and 63% of credits enhance resilience to hurricanes or typhoons.

Examples of LEED certified projects that have demonstrated exceptional resilience qualities include an interior office space in San Juan, Puerto Rico that survived and thrived in the aftermath of a hurricane; an apartment building designed to rehabilitate and support formerly homeless veterans; and a large corporate headquarters building designed to withstand hurricane-strength winds.

To further support project teams in enhancing resilience, USGBC now offers a resilience-focused rating system, RELi, as well as several resilient design pilot credits in the LEED system. The RELi rating system, originally developed by the Institute for Market Transformation to Sustainability, aligns with LEED, while expanding the focus on proven strategies and methods. For example, RELi requires assessment and planning for acute hazards, preparedness to mitigate against them, and designing and constructing for passive survivability.

USGBC partnered with the Institute to synthesize LEED resilient design pilot credits with RELi's Hazard Mitigation and Adaptation credits, thereby strengthening the alignment and compatibility of LEED and RELi for projects. The LEED resilient design pilot credits are currently available to all new construction projects. The credits include *Assessment and Planning for Resilience*; *Design for Enhanced Resilience*; and *Passive Survivability and Back-up Power During Disruptions*.

Building resiliently – and building back “better” – deliver significant financial benefits, as well as protecting life and property. A 2019 study by the National Institute of Building Sciences (NIBS) found that each \$1 spent on mitigation activities saves \$11 in response and recovery costs.<sup>6</sup> By incorporating resilient strategies, especially via LEED certification, projects are more sustainable, durable, healthier, and better for the overall community

#### Federal Agencies and High-Performing Buildings

Through its buildings and construction investments, the Federal government can protect and expand the American workforce and also catalyze future competitiveness and growth of domestic enterprises.

Federal agencies use green building certification to meet their energy and sustainability goals for public facilities. GSA was an early adopter of LEED and has helped shape the system as its versions evolved over the past 15 years. Notably, GSA has contributed through demonstrating LEED in practice, developing experience in building technologies, and direct involvement in the development of the rating system through technical committees and pursuit of LEED Interpretations. This involvement has contributed to LEED being a green building certification system that is flexible enough to meet the unique

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<sup>5</sup> Sandeep Langar, Ph. D., and Suchismita Bhattacharjee, Ph. D., [Focus of resilience within Building Rating Systems \(BRS\) LEED 4.0 Review](#), presented at Building Innovation 2018 (January 9, 2018).

<sup>6</sup> National Institute of Building Science, [Natural Hazard Mitigation Saves: 2018 Interim Report](#).

challenges of the diverse federal portfolio, and robust enough to help Federal agencies meet increasingly stringent performance metrics.

In addition to GSA, nine Federal departments and agencies and five national laboratories have participated on committees and as subject matter experts. Federal agencies have also helped, on numerous occasions, shape the system. For example, National Institute for Occupational Safety and Health (NIOSH) worked with USGBC to propose its Prevention through Design standard for use in LEED; this is now a pilot credit.

Under section 436 of the Energy Independence and Security Act of 2007,<sup>7</sup> the U.S. General Services Administration (GSA) is tasked with evaluating green building certification systems every five years in order to identify a system and certification level “most likely to encourage a comprehensive and environmentally sound approach to certification of green buildings” in the federal government. GSA’s Office of High-Performance Green Buildings recommends to the Secretary of Energy the green building certification system to be used in the federal government, and has recommended LEED since 2006. GSA has repeatedly found LEED to align well with federal requirements.<sup>8</sup> GSA has its third five-year review underway. For this review, GSA applied a new methodology, including collecting information from green building system owners through a survey and providing an independent, third-party review by the Rocky Mountain Institute. LEED has consistently received superior scores across all three reviews. The recently released Findings Report concludes that LEED is even more aligned with federal requirements.<sup>9</sup>

Across more than 20 agencies and departments, the federal government has certified over 5,000 LEED projects, driving tremendous taxpayer savings while also creating jobs and reducing environmental impacts. As of May 2019, the total number of LEED certified federal projects is 5,319 representing 289 Million GSF, with additional registrations of more than 4,000 projects representing 462 Million GSF. The Department of Defense is a leader in high performing building certifications (3,810), along with GSA (225), Department of Health and Human Services (132), Interior (98), Energy (84), State (65), and NASA (50).

A notable example is the U.S. Department of the Treasury’s iconic headquarters, which earned LEED Gold in 2011. The building, which made significant building operation improvements to slash energy and water consumption, saves taxpayers \$3.5 million per year. Another is the Wayne Aspinall Federal Building in Grand Junction, Colorado, which earned LEED Platinum certification in 2013. The building was modernized to operate as net-zero energy, while maintaining its status on the National Register of Historic Places – the first such building to do so. Incorporation of rooftop photovoltaic panels along with a thermally enhanced building envelope and advanced metering and controls helped the Aspinall Federal Building achieve net-zero status.<sup>10</sup>

### Federal Progress

The federal government is one of the nation’s largest energy consumers, spending approximately \$6 billion in FY 2017 to provide energy to more than 300,000 buildings.<sup>11</sup> Over the past decade, driven by agency leadership, congressional and executive direction, GSA and other Federal agencies have made strides in saving energy, water, and money, while providing high quality spaces with indoor air quality that promotes wellness and productivity.

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<sup>7</sup> Energy Independence and Security Act of 2007 (EISA), Pub. L. No. 110-140, tit. IV subtit. C, §§ 433(a), 436, codified at 42 U.S.C. § 6834(a)(3)(D)(iv), 42 U.S.C. § 17092.

<sup>8</sup> See GSA, [High Performance Building Certification System Review](#).

<sup>9</sup> See GSA, High-Performance Building Certification System Review [Findings Report](#) (2019).

<sup>10</sup> See GSA project information [page](#).

<sup>11</sup> Data drawn from the DOE, Comprehensive Annual Energy Data and Sustainability Performance [database](#).

The GSA uses high-performing building standards as part of its tools and strategies to help achieve energy and water savings goals. GSA reported in 2015 that it had reduced its EUI by over 30 percent since 2003, resulting in \$83.6 million in avoided utility costs in 2015. With water, GSA reported reducing its water use intensity (gallons per square foot) by nearly 30 percent from 2007–2015, avoiding over 2.78 billion gallons of water use since 2007 through efficiency and saving \$10.6 million in FY 2015.<sup>12</sup>

For a 2018 report, GSA examined 200 buildings over a three year period and found that, compared to legacy buildings, GSA's high performing buildings show 23% less building operating expenses, 23% less energy use, 28% less water use, and a 9% decrease in waste.<sup>13</sup> And, according to the Office of Management and Budget (OMB), as a result of historic investments in energy efficiency since 2009, the government will consume 20 percent less energy in buildings than it would have, saving taxpayers billions of dollars.

High performing, green building certification systems – particularly LEED -- have helped agencies achieve these savings. GSA's use of third-party standards, including LEED, fulfills the National Technology Transfer and Advancement Act (NTTAA) of 1996, which calls for the federal government to use nongovernmental standards where appropriate, rather than waste government resources to create duplicative standards. GSA's ad-hoc Discussion Group found in 2013 that "[P]roperly aligned with government requirements, use of these systems saves government resources by eliminating the cost to Government of developing its own standards while furthering the policy of reliance on the private sector to supply Government needs for goods and services."

In addition to GSA's leadership by example and its recommendations for third-party high-performing building certification systems, government-wide efficiency is also significantly aided by FEMP, a DOE office that provides key efficiency guidance and services to federal agencies. FEMP also works with agencies and with the Office of Management and Budget, and the Council on Environmental Quality, on reporting related to energy, water, and other aspects of sustainability.

Through these efforts, the Office of Federal Sustainability of CEQ reports that in Fiscal Year 2017, the Federal government reduced energy in Federal buildings by 2% since FY2016 and reduced potable water consumption by 3.8% since FY2016. In addition, Federal agencies reported leveraging \$1.145 billion in private sector investments (performance contracts) to drive energy and water savings in Federal facilities; using renewable energy to power more than 10% of facility energy needs; and increasing renewable electricity produced on Federal land by 16% since FY2016.

The Office collects and reports additional critical data, including government Scope 1 and 2 greenhouse gas (GHG) emissions, which indicate over 25 percent reduction since 2008. Investment in federal efficiency is also tracked; these data reflect American Recovery and Reinvestment Act of 2009 (ARRA), which includes the single largest investment in energy efficiency in history. GSA, for example, received over \$5 billion to invest in high-performing buildings. These data also help show the leverage of private sector funding through performance contracts, which continues to increase.

GAO has also affirmed Federal agency benefits from green building systems. As part of the Government Accountability Office's (GAO) portfolio of work on the performance and accountability of federal agencies with respect to sustainability, GAO evaluated the implementation of key green building requirements as directed by federal laws, executive orders and other policies.<sup>14</sup> The report examined the use of third-party certification, including the LEED green building rating system, in helping meet these standards.

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<sup>12</sup> GSA, [FY 2016 Strategic Sustainability Performance Plan](#).

<sup>13</sup> U.S. General Services Administration, "[The Impact of High Performing Buildings](#)" (2018).

<sup>14</sup> Federal Green Building – Federal Efforts and Third-Party Certification Help Agencies Implement Key Requirements, but Challenges Remain," GAO-15-667, July 2015, Page 17

GAO surveyed five agencies including the GSA, Department of Energy (DOE) and the Environmental Protection Agency (EPA), each of which have green building expertise and responsibilities related to federal guidelines for buildings, and the Veterans Administration (VA), Air Force and U.S. Army, as building owners and users. GAO did not make any recommendations to improve performance or evaluation or use of green building rating systems by the federal agencies.

All five agencies use LEED in their current policies related to new construction and major renovations. Additionally, officials from all five select agencies (DOE, EPA, GSA, VA, Air Force, and Army) reported to GAO that third-party certification helps ensure compliance with key building requirements by holding contractors and agency project teams accountable for incorporating the requirements. GAO reported agency comments on how LEED is used to support federal efforts, including reducing costs, promoting accountability, and providing a framework for projects. According to GSA officials, as reported to GAO, third-party certification accounts for an average of just .012 percent of total project costs.

### Broad Benefits

Beyond the direct financial benefits, high-performing buildings support a productive federal workforce. For example, a series of recent academic studies quantified higher cognitive function scores, fewer sick building symptoms and higher sleep quality scores associated with green, energy efficient buildings; and higher cognitive function with improved indoor air quality, associated with properly managed energy efficient buildings.<sup>15</sup> Specifically, the studies found improved indoor environmental quality doubled cognitive function test scores. Scores averaged 101% higher in green buildings with enhanced ventilation compared to conventional buildings. Finally, the studies estimated \$6,500 in annual improved productivity in green buildings with enhanced ventilation.

Federal agencies' use of high performing buildings may also have a positive spillover effect, in encouraging the spread of innovative building science and technology. A Harvard Business School study found that public investment in LEED-certified government buildings stimulates private investment, supply and market uptake of greener building practice.<sup>16</sup> The research finds that green public building commitments produce a near doubling effect in private investment across the building sector and up and down the supply chain of products, professionals and services.

### Exports

Global markets see growth for high performing, energy efficient buildings and the products and services that support their development and operation. Goods and services touching on clean energy, energy efficiency, resilience and increasingly, buildings and infrastructure related IT and data, are a growing area of the U.S. economy. These sectors provide an already impressive number of jobs for U.S. citizens including many high quality manufacturing and construction jobs. According to the IEA, the global market for energy efficiency in buildings grew by 9% from 2014 to 2015 to \$388 billion.<sup>17</sup> A 2016 study found that global green building continues to double every three years.<sup>18</sup>

Private and public sector support for energy efficiency and sustainability within the U.S. has enabled a thriving industry, in turn creating a huge export market for U.S. made building products and services. The U.S. Department of Commerce projected a \$39 billion export market for the building sector in 2018, with

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<sup>15</sup> See Harvard T.H. Chan School of Public Health, "[The impact of green buildings on cognitive function.](#)"

<sup>16</sup> T. Simcoe and M. Toffel, Public Procurement and the Private Supply of Green Buildings, National Bureau of Economic Research, Working Paper 18385 (2012).

<sup>17</sup> International Energy Agency (IEA), Energy Efficiency Market Report 2016.

<sup>18</sup> Dodge Data & Analytics, SmartMarket Report: World Green Building Trends 2016: Developing Markets Accelerate Global Green Growth (2016).

focus on sustainable, energy efficient goods and services.<sup>19</sup> Commerce identifies the global demand for sustainable construction as a major driver for the demand for US products and services; with China number 3 in importing American building products.

This strong export market for products such as wood products, windows and doors, insulation, HVAC, insulation, plumbing and glass all increase good jobs here in the U.S. As Commerce observes, with increased global interest in smart, resilient, and efficient buildings, “U.S. building products are competitive...U.S. manufacturers have much to offer global markets that recognize increasing building performance.”<sup>20</sup>

### Federal Drivers

As a starting point, energy efficiency in federal buildings is established in law. Since the energy crisis of the late 1970s, Congress has repeatedly sought to ensure federal buildings achieve energy efficiency. Notably, the Energy Independence and Security Act of 2007 (EISA) requires federal agencies to reduce energy use in federal buildings by specified levels each year, culminating in a 30 percent reduction by 2015. More recently, in 2012, Congress added requirements regarding building metering and transparency, to help hold agencies accountable for their progress in energy management.

EISA also established GSA’s Office of Federal High-Performance Green Buildings, and required it to identify the certification system that is “most likely to encourage a comprehensive and environmentally sound approach to the certification of green buildings,” as noted above; In consultation with GSA and the Department of Defense, the Department of Energy (DOE) was then required to identify a system and level for use by agencies. The DOE rule asserts “the Federal government has a statutory obligation to lead by example,” and pushes agencies to do better. The DOE rule formalizes a policy of flexibility for federal agencies in how they meet requirements for energy and water efficient buildings.

Federal guidelines known as the Guiding Principles established by Federal agencies in 2006 and incorporated into executive orders in 2007 and 2009 and later codified by Congress, and updated in 2016, sets out to achieve gains in five key areas of sustainability: employ integrated design principles, optimize energy performance, protect and conserve water, enhance indoor environmental quality, and reduce the environmental impact of materials.<sup>21</sup>

### Areas for Increased Impact

Federal progress over the last decade has been significant, in term of increasing energy and water efficiency in buildings, providing indoor environments that support wellness and productivity, and achieving sustainability. Ensuring adequate continued funding for the GSA Office of High Performing Green Buildings is key to continued progress, as well as authorization of and funding for FEMP, which plays a critical role along with GSA in supporting government-wide energy and water efficiency and sustainability, for buildings and government operations. FEMP is a hub for best practices and provides services to help agencies implement improvements, including procurement through energy savings performance contracts, utility energy service contracts, and distributed energy.

We see opportunities to strengthen and expand Federal building sustainability and cost savings. For example, Federal agency goals for key metrics such as energy use, water consumption, renewable energy, and efficiency investment such as performance contracting, should be continued to ensure all agencies are engaged in and benefit from efficiency. Federal energy efficiency performance standards are another area where updating could help increase federal savings. For leases, there is opportunity to

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<sup>19</sup> U.S. Department of Commerce, International Trade Administration, 2016 Top Markets Report: Building Products and Sustainable Construction, A Market Assessment Tool for U.S. Exporters (2016).

<sup>20</sup> Id.

<sup>21</sup> See [Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings](#).



strengthen the applicability of efficiency and green lease provisions, and to further ensure cost-effective efficiency measure requirements are implemented.

To enhance resilience activities in particular, existing federal facilities, campuses, and land, can further utilize green infrastructure and stormwater management to reduce strain on local waterways, storm drains, and wastewater systems, building off of what is required under EISA 2007 for new development. Goals for applying these strategies could also be helpful.

Also related to resilience, as well as energy independence, Federal agencies can be encouraged to attain net zero operations at key facilities, to showcase American innovation as well as serve as hubs and operations centers. Pilot testing of new resilience tools and systems may also be beneficial, particular in conjunction with critical facilities such as military bases and hospitals; as would be a resiliency fund. In this regards, we encourage a broad view of resiliency to include health. We are also supportive of the reinstatement of a Federal flood risk management standard, to protect Federal investment.

Several contracting provisions could also be updated to reflect current conditions and opportunities. Federal agency achievement related to renewable energy could be increased with extension of allowable timeframes for power purchase agreements. Agency use of Utility Energy Service Contracts provisions could also benefit from an extension in permissible contract length, while their use of Energy Savings Performance Contracts could be increased with specific directives and clarifications.

With respect to Federal planning, we support continuation of agency Sustainability Plans, along with tracking and reporting, and are pleased to see that the recently issued Implementing Instructions for Executive Order 13834 include these critical requirements. The agency scorecards are also important and highlight some specific areas for further attention. These could potentially be expanded to incorporate resilience metrics.

In the context of infrastructure, we support inclusion of public buildings, including Federal buildings, as part of a package. In particular, funding could drive increased efficiency and resiliency in retrofitting or replacing aging facilities.

Thank you for the opportunity to provide information to the Subcommittee on this important topic.