

# Buildings UP

## The Buildings Upgrade Prize

An American-Made Challenges Prize Supported by the U.S. Department of Energy



### Phase 2

## DRAFT OFFICIAL PRIZE RULES

June 2023

# Preface

The U.S. Department of Energy (DOE) Buildings Upgrade Prize (Buildings UP) will be governed by 15 U.S.C. §3719 and this Official Rules document. This is not a procurement under the Federal Acquisitions Regulations and will not result in a grant or cooperative agreement under 2 CFR 200. The Prize Administrator reserves the right to modify this Official Rules document if necessary and will publicly post any such notifications as well as notify registered prize participants.

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# 1 Overview

The U.S. Department of Energy (DOE) Buildings Upgrade Prize (Buildings UP) is a capacity-building prize focused on reducing greenhouse gas emissions in existing buildings through energy efficiency and efficient electrification. In its first phase, Buildings UP awarded cash prizes and technical assistance to winning teams that developed innovative concepts for leveraging billions in federal funding for energy efficiency and efficient electrification to accelerate building upgrades and achieve greenhouse gas reduction, equity, economic development, and health goals.

Buildings UP has four proposed phases, as shown in Figure 1, over approximately five years. This document addresses the rules for the Phase 2 only, which is open to Phase 1 winners only. DOE intends to award up to \$17 million dollars under Phase 2. *Subsequent phases are envisioned to offer similar prizes subject to the availability of funds.*

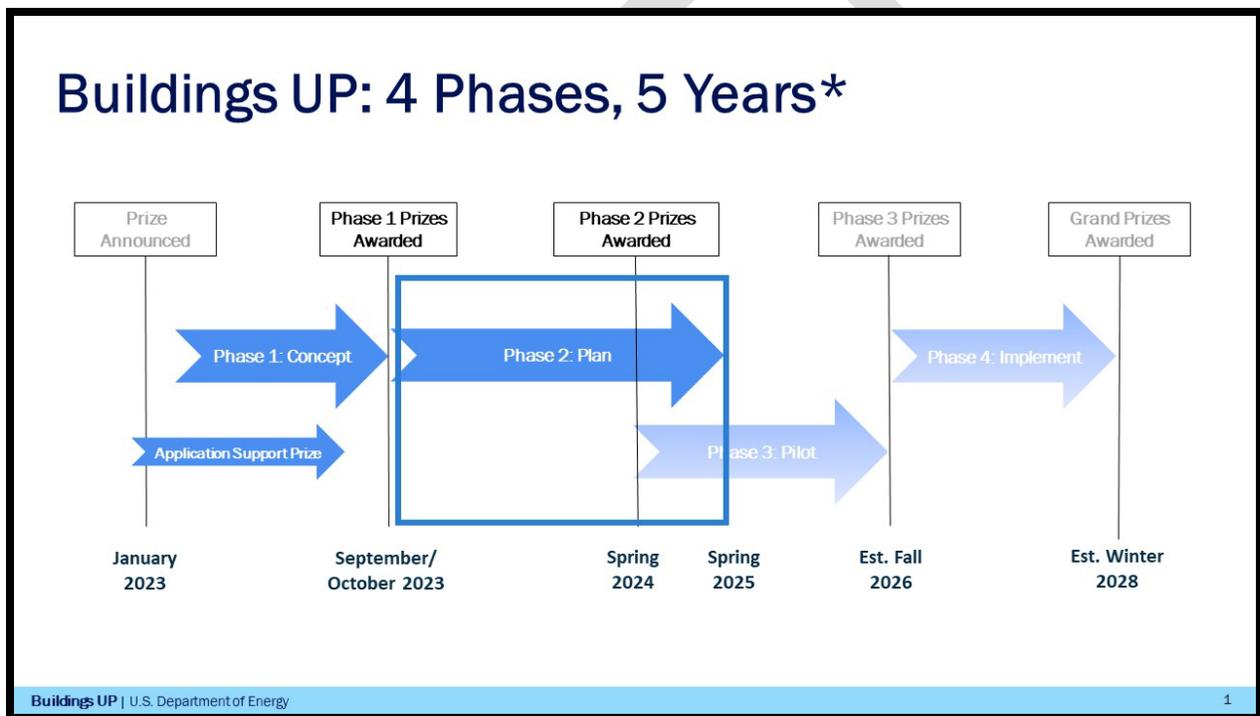


Figure 1. Anticipated Buildings UP phases

Phase 1 winning teams applied to one of two pathways:

1. **Equity-Centered Innovation Pathway** – Teams proposed a new initiative or innovation to an existing initiative for delivering scalable and replicable building upgrades to buildings in disadvantaged communities, low- and moderate-income (LMI) households, and underserved commercial, nonprofit, and public buildings, collectively referred to throughout this document as “equity-eligible” buildings. (See Section 3.4 for a detailed definition.)
2. **Open Innovation Pathway** – Teams proposed a new initiative or innovation to an existing initiative that addresses a geographic area or building type and can achieve scalability and replicability of building upgrades.

Prizes were awarded under Phase 1 to teams that 1) presented an actionable Concept Plan for an innovative energy efficiency and efficient electrification building upgrade initiative, including at a minimum electrifying heating and cooling and energy efficiency where needed to reduce energy costs, and 2) demonstrated a commitment to further develop and implement the initiative. Under Phase 1, winning teams in the Equity-Centered Innovation Pathway were awarded \$400,000. Winning teams in the Open Innovation Pathway were awarded \$200,000. Phase 1 winning teams also have access to technical assistance to turn their concepts into actionable plans. Technical assistance may include but is not limited to direct one-on-one coaching, cohort webinars on best practices, connections with technology or other experts, building energy analysis, guidance on undertaking authentic community engagement, and advice on creative funding and financing strategies. Through this combination of cash prizes and tailored technical assistance, Buildings UP aims to empower teams to launch or improve building upgrade initiatives that, as a combined portfolio of solutions, will deliver advances in energy efficiency, efficient electrification, comfort, indoor air quality, energy equity, housing affordability, and resilience.

Buildings UP offered an application support prize during Phase 1 to encourage new and under-resourced applicants to participate. Winning teams of the support prize were each awarded \$5,000 and 10 hours of technical assistance to support their Concept Plan submission development in Phase 1.

Additional information can be found in the [Buildings UP Frequently Asked Questions \(FAQ\)](#).

## 2 Background

### 2.1 Role of Building Upgrades in Meeting National Greenhouse Gas Reduction Goals

The U.S. building stock—consisting of more than 123 million homes and 5.9 million commercial buildings—consumes 75% of the nation’s electricity and 40% of the nation’s total energy, and accounts for 35% of the country’s carbon dioxide emissions. Within commercial and residential buildings, space heating, ventilating, and air conditioning (HVAC) and water heating account for over 60% of energy use. To meet the Biden administration’s ambitious [greenhouse gas reduction goals](#)<sup>1</sup> and [Justice40 commitments](#),<sup>2</sup> existing buildings across a wide variety of uses, sizes, vintages, and climates must be upgraded rapidly and equitably. Historically, most existing programs designed to deliver energy-efficient building upgrades have not scaled, and upgrades remain complicated, costly, disruptive, and undervalued.

To solve these challenges, DOE seeks to support and recognize energy efficiency and efficient electrification initiative innovations in areas such as project financing, project aggregation and customer acquisition, equipment ownership structures, soft cost reduction, workforce training, contractor development, alignment with affordable housing constraints, communications, community engagement, and project delivery.

### 2.2 Challenges to Building Upgrades

There are multiple persistent barriers to scaling energy efficiency and efficient electrification building upgrades, including:

- Lack of contractor familiarity with efficient electrification technologies (such as heat pumps and heat pump water heaters) and integrated building upgrades (such as a package of insulation, air sealing, and HVAC upgrades)
- High first costs for labor and equipment, compared to conventional equipment
- Lack of retrofit materials and components
- Limited short-term financial payback
- Insufficient numbers of skilled workers to design, finance, install, and maintain retrofits
- Lack of reach of funding and incentive programs to historically underserved households and building owners to provide energy efficiency and weatherization upgrades, especially for buildings that require health and safety upgrades before energy upgrades can occur. (For example, the Weatherization Assistance Program<sup>3</sup> is only able to reach about 0.2% of eligible low-income households with weatherization upgrades annually<sup>4</sup>)
- Inconsistent quality of work and consumer mistrust.

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<sup>1</sup> [FACT SHEET: President Biden Sets 2030 Greenhouse Gas Pollution Reduction Target Aimed at Creating Good-Paying Union Jobs and Securing U.S. Leadership on Clean Energy Technologies | The White House](#)

<sup>2</sup> [Justice40 Initiative | Environmental Justice | The White House](#)

<sup>3</sup> [Weatherization Assistance Program | Department of Energy](#)

<sup>4</sup> [Weatherization Cuts Bills and Creates Jobs but Serves Only a Tiny Share of Low-income Homes | ACEEE](#)

## 2.3 Potential Solutions for Scaling Building Upgrades

Through Buildings UP, teams can be rewarded for the development—and in later phases the implementation—of innovative approaches that address barriers to building upgrades, including but not limited to:

- **Innovative funding combinations and financing to reduce upfront costs** of equipment and installation, such as leveraging multiple sources of funding (e.g., combining federal rebates, state and local funding sources, and philanthropic funds to reduce the direct cost of upgrades to homeowners), and addressing prerequisite health and safety upgrades
- **Scalable and replicable initiative models** that streamline the implementation of energy efficiency and efficient electrification upgrades (e.g., streamlined audits, permitting, contractor engagement, and installation)
- **Attractive business models** that incentivize manufacturers and contractors to produce and install heat pumps, insulation, and other products that enable energy efficiency and efficient electrification upgrades
- **Marketing and quantification of additional benefits for building owners and tenants**, such as from comfort and indoor air quality improvements, to incentivize greater uptake of retrofit measures
- **Promotion of energy efficiency and efficient electrification solutions among a broader range of stakeholders** through robust stakeholder engagement, communications campaigns, setting public goals, and promoting initiative successes
- **High-quality installations and upgrades** for optimal performance through streamlined quality assurance/quality control and workforce training support.

## 2.4 Prize Goals

Buildings UP aims to reward innovative initiatives that address persistent administrative, financial, social, and other barriers to improving building energy efficiency and reducing on-site emissions. While no single team is likely to address all barriers alone, the portfolio of solutions developed collectively by winning teams contributes to the achievement of prize goals.

Specifically, DOE seeks to support solutions that:

- **Accelerate building upgrades for efficiency and on-site emissions reductions.** Winning concepts will advance significant innovations for rapidly increasing retrofits beyond current best practices in the applicant's identified area of focus.
- **Demonstrate scalability and replicability.** Winning concepts will have applicability across building type(s) climate zone(s), and/or, community type(s).
- **Advance holistic and lasting energy efficiency and efficient electrification initiative development** (e.g., through supportive infrastructure, financing, and funding) with support from DOE's and the National Renewable Energy Laboratory's (NREL's) robust technical support network of American-Made Challenges "Power Connectors."
- **Benefit underserved communities.** The prize is structured to ensure that at least 40% of the initiative benefits accrue to equity-eligible buildings (see Section 3.4 for full definition), their occupants, and surrounding communities. Winning teams in the Equity-Centered Innovation Pathway will receive higher prize amounts, which can support deep and intentional engagement with communities being served.

## 2.5 Eligible Building Types and Upgrades

Buildings intended for upgrades may include one or multiple residential or commercial building types (e.g., single family; multifamily; manufactured housing; K–12 schools; higher education; commercial real estate; hospitality; health care; retail, food service, and grocery; local government buildings; state government buildings) and may be in a single community or include buildings across multiple geographic locations.

The **minimum** technologies and strategies teams must include in every upgrade in their initiative:

- Efficient electric heating and cooling equipment (e.g., heat pumps and/or heat pump water heaters, geothermal heat pumps)
- Weatherization and envelope improvements (e.g., insulation, air sealing, window improvements) where needed to reduce energy cost.

**Additional** strategies and technologies teams may incorporate into their initiatives include but are not limited to:

- Efficient electric appliances
- Electric vehicle chargers
- On-site and community solar
- Electric panel upgrades
- Building controls
- Energy storage.

## 2.6 Applications Not of Interest

Applications that do not present strategies that address one or more of the goals specified in section 2.4, or that do not include the technologies as specified in section 2.5 are not of interest and will not be considered. Additionally, applications that define a building upgrade zone for the full-implementation initiative that is limited to a single building will not be considered.

# 3 Buildings Upgrade Prize

Application Support Prizes and Phase 1 Concept Prizes are closed.<sup>5</sup> Phase 2 Planning Prizes will be awarded to winning teams as described below.

## 3.1 Phase 2: Planning

Up to \$17 million is available as awards to winning teams in Phase 2 to advance their building upgrade initiative concepts into Pilot Implementation Plans in one of two prize pathways: the Equity-Centered Innovation Pathway or the Open Innovation Pathway. The two pathways are compared in Table 1. Pilot Implementation Plans should sufficiently address all critical success factors outlined in this rules document. Teams are not allowed to change from the Open Innovation Pathway to the Equity-Centered Pathway (and visa-versa) between Phase 1 and Phase 2.

Table 1. Phase 2 Prize Pathways

	Equity-Centered Innovation Pathway	Open Innovation Pathway
<b>Phase 2 Deliverable</b>	Building Upgrade Initiative-Pilot Implementation Plan addressing all Critical Success Factors and supporting documentation for selected Pathway.	
<b>Equity Commitment</b>	The team’s building upgrade initiative demonstrates a focus on equity-eligible buildings (at least 80% of upgrades take place in equity eligible buildings).	Team is encouraged to include equity-eligible buildings in initiatives, but not required.
<b>Required Team Members</b>	<ul style="list-style-type: none"> <li>• Lead Organization (demonstrates at least 1 full-time equivalent [FTE] staff member available for the initiative, may be spread across different people/organizations)</li> <li>• Designated Prize Recipient (up to 2 per team)</li> <li>• Community Engagement expertise representing communities to be served (e.g., Community Based Organization).</li> </ul>	<ul style="list-style-type: none"> <li>• Lead Organization (demonstrates at least 1 FTE available for the initiative, may be spread across different people/ organizations)</li> <li>• Designated Prize Recipient (1 per team)</li> </ul>

<sup>5</sup> Phase 1 Rules are available in English (<https://www.herox.com/BuildingsUP/resource/1152>) and Spanish (<https://www.herox.com/BuildingsUP/resource/1174>).

<b>Encouraged Team Members</b>	Expertise in accessing and/or combining multiple sources of funding to fully resource building upgrade initiatives.	Community engagement expertise. Expertise in accessing and/or combining multiple sources of funding to fully resource building upgrade initiatives.
<b>Prize Funding</b>	\$400,000	\$200,000
<b>Technical Assistance</b>	Up to 140 hours of technical assistance	Up to 100 hours of technical assistance

All teams must include:

1. **A Lead Organization** that commits a lead point of contact/ staff person for the duration of their involvement in Buildings UP. The team should have at least one full-time equivalent (FTE) dedicated to this effort. The FTE may be spread across multiple organizations on the team or be one employee at one organization.
2. **A Designated Prize Recipient** that is a legal entity and can receive prize funds. The Designated Prize Recipient can be a fiscal sponsor for a participating organization that is not a legal entity. The Lead Organization may also be the Designated Prize Recipient.

Phase 2 teams will also have access to a Team Collaboration Platform, technical assistance from a variety of providers, and Regional Navigators. Each Phase 2 team will be assigned to a Regional Navigator to help identify local and regional resources to implement a pilot building upgrade initiative and connect teams to technical assistance providers. Technical Assistance providers will offer teams support in the areas of financing building upgrades, building stock and energy modeling analysis, programmatic design, and workforce development.

## 3.2 Key Dates

- **Phase 2 announcement and rules posted:** September/October 2023
- **Phase 2 Planning Prize submission period:** October 2023 through Spring 2025
- **Phase 2 winning teams announced, prizes awarded:** Quarterly during the Phase 2 submission period beginning in Spring/Summer 2024.
- **Access to cohort trainings, technical assistance, and Regional Navigators begins for winning teams:** October 2023

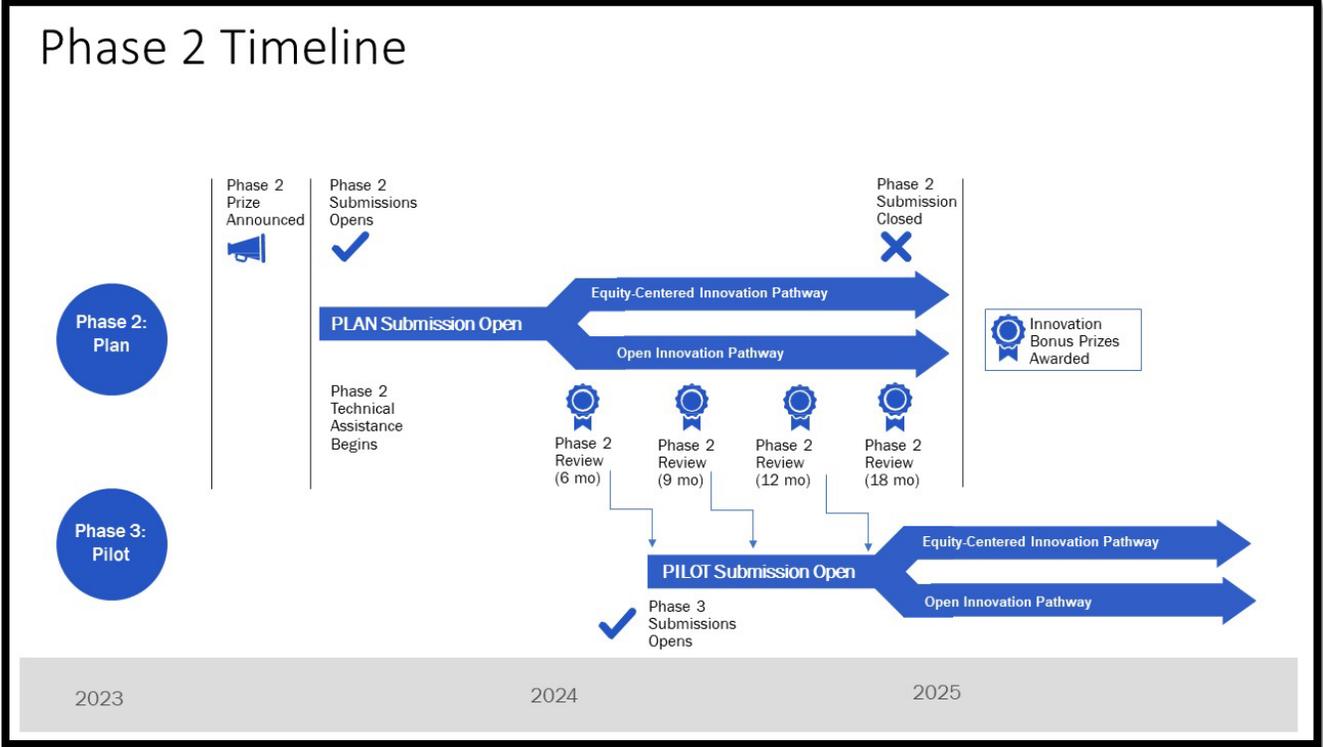


Figure 2. Phase 2 timeline

## 3.3 Eligibility and Teams

Buildings UP Phase 2 is open to teams that were previously awarded as Phase 1 winners. Organizations may be a part of multiple submitting teams.

Phase 2 teams may include:

- **Non-federal-government entities** such as municipalities, states, counties, tribal governments, territories, public housing authorities, and/or regional planning organizations.
- **Indian Tribes.** For the purposes of this prize, the term “Indian Tribe” includes both federally recognized and non-federally recognized (e.g., state-recognized) Indian tribes.
- **Community-based organizations (CBOs).** For this prize, DOE defines community-based organizations as “nonprofit organizations that are representative of a community or segments of a community, defined by place or population, and provides financial, educational, cultural, and/or other resources aimed at enhancing health, wealth, and overall community well-being.” For-profit entities and large nonprofits with a particular area of focus beyond the local level are typically excluded from this definition. Ideally, CBOs are physically based in the communities they serve, though in some cases CBOs can be effective even without a physical presence. CBOs range from formal organizations with legal nonprofit status (501(c)(3), 501(c)(4), etc.) to informal, grassroots community groups that are mission-driven and headed by respected community leaders. **To be eligible for this Prize, a CBO must have its own nonprofit legal status OR utilize a fiscal sponsor with a nonprofit legal status.**
- **Nonprofit or for-profit organizations** such as portfolio building owners/operators, utilities, building upgrade service providers, unions, faith-based organizations, and other entities. Private entities must be incorporated in and maintain a primary place of business in the United States with majority domestic ownership and control.

Organizations participating on teams are subject to the following requirements:

- Private entities must be incorporated in and maintain a primary place of business in the United States with majority domestic ownership and control.
- Academic institutions must be based in the United States.
- An individual Prize competitor or group of competitors (Team) who are not competing as part of an incorporated private entity must all be United States citizens or legal permanent residents.
- Individuals competing as part of an incorporated private entity may participate if they are legally allowed to work in the United States.
- DOE employees, employees of sponsoring organizations, members of their immediate families (e.g., spouses, children, siblings, or parents), and persons living in the same household as such persons, whether or not related, are not eligible to participate in the Prize.
- Individuals who worked at DOE (federal employees or support service contractors) within six months prior to the submission deadline of any contest are not eligible to participate in any Prize phases in this program.
- Federal entities and federal employees are not eligible to compete in any portion of the Prize.
- DOE national laboratory employees cannot compete in the Prize.
- Entities and individuals publicly banned from doing business with the U.S. government, such as entities and individuals debarred, suspended, or otherwise excluded from or ineligible for participating in federal programs are not eligible to compete.
- Entities and individuals identified as a restricted party on one or more screening lists of the Departments of Commerce, State, and the Treasury are not eligible to compete. See [Consolidated Screening List](#).

- This Prize competition is expected to positively impact U.S. economic competitiveness. Participation in a foreign government talent recruitment program<sup>6</sup> could conflict with this objective by resulting in unauthorized transfer of scientific and technical information to foreign government entities. Therefore, individuals participating in foreign government talent recruitment programs of foreign countries of risk<sup>7</sup> are not eligible to compete. Further, teams that include individuals participating in foreign government talent recruitment programs of foreign countries of risk are not eligible to compete.
- As part of their submission to this Prize program, applicants will be required to sign the following statement:
  - *I am providing this submission package as part of my participation in this Prize. I understand that I am providing this submission to the Federal Government. I certify under penalty of perjury that the named competitor meets the eligibility requirements for this Prize competition and complies with all other rules contained in the Official Rules document. I further represent that the information contained in the submission is true and contains no misrepresentations. I understand false statements or misrepresentations to the Federal Government may result in civil and/or criminal penalties under 18 U.S.C. § 1001 and § 287.*

To compete in Phase 2 of Buildings UP, a participating team must continue to comply with the eligibility requirements above. By completing a Phase 2 submission, a team certifies that they follow these eligibility requirements. Eligibility is subject to verification before prizes are awarded. The registered competitor is the participant that registered in HeroX to compete.

Organizations meeting the above eligibility requirements may participate as Team Members or Team Leads in Phase 2 whether or not they are legally organized entities. However, prize funds can only be paid to legally organized entities. Winning teams should designate a legally organized entity to serve as the Designated Prize Recipient to receive prize funds.

Smaller organizations (e.g., small local governments or small utilities) may form consortia to participate as a team. Teams that support or administer existing building retrofit initiatives are eligible to apply, so long as their Phase 2 submission includes significantly expanding or improving upon an existing initiative or developing a new initiative.

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<sup>6</sup> A foreign government talent recruitment program is defined as an effort directly or indirectly organized, managed, or funded by a foreign government to recruit science and technology professionals or students (regardless of citizenship or national origin, and whether having a full-time or part-time position). Some foreign government-sponsored talent recruitment programs operate with the intent to import or otherwise acquire from abroad, sometimes through illicit means, proprietary technology or software, unpublished data and methods, and intellectual property to further the military modernization goals and/or economic goals of a foreign government. Many, but not all, programs aim to incentivize the intended individual to physically relocate to the foreign state for the above purpose. Some programs allow for or encourage continued employment at U.S. research facilities or receipt of federal research funds while concurrently working at and/or receiving compensation from a foreign institution, and some direct participants not to disclose their participation to U.S. entities. Compensation could take many forms, including cash, research funding, complimentary foreign travel, honorific titles, career advancement opportunities, promised future compensation, or other types of remuneration or consideration, including in-kind compensation.

<sup>7</sup> Currently, the list of countries of risk includes Russia, Iran, North Korea, and China.

## 3.4 Equity-Eligible Buildings

Buildings UP is committed to meeting the goals of the Justice40 Initiative,<sup>8</sup> which directs 40% of the overall benefits of certain federal investments to flow to disadvantaged communities. The Office of Management and Budget's interim Justice40 implementation guidance<sup>9</sup> defines a *community* as either:

1. A group of individuals living in geographic proximity (such as a census tract) or
2. A geographically dispersed set of individuals (such as migrant workers or Native Americans), where either type of group experiences common conditions.

Buildings UP allows for teams to use both approaches in directing the benefits of building upgrades to disadvantaged communities, which can be defined by geography (such as buildings within a low-income neighborhood) or by characteristics of building occupants or users (such as low-income households or disadvantaged business enterprises).

**For the purpose of this prize, the following building types are considered “equity-eligible” and will meet the requirements of the Equity-Centered Innovation Pathway:**

1. **Buildings located within Climate and Environmental Justice Screening Tool (CEJST)-designated Justice40 census tracts, federally recognized tribal lands, and U.S. territories.** The CEJST uses publicly available, nationally consistent datasets to identify disadvantaged communities. The datasets are indicators of burdens that disadvantaged communities face. These burdens are related to climate change, the environment, health, and economic opportunity. The CEJST features a user-friendly, searchable map of all 50 states, the District of Columbia, and the U.S. territories. Communities are considered disadvantaged if they are in census tracts that meet the thresholds for at least one of the tool's categories of burden, or if they are on lands within the boundaries of Federally Recognized Tribes. Census tracts are the smallest geographic unit for which reliable, nationwide data exist to support the CEJST methodology. The tool utilizes the census tract boundaries from 2010 because many of the data sources in the tool use those boundaries. More information about the CEJST methodology, datasets, and downloadable files, can be found on the CEJST website at <https://screeningtool.geoplatform.gov>. The CEJST Technical Support Document, also available on the CEJST website, provides additional details about the tool.<sup>10</sup>

Teams that use this approach to define their equity-eligible buildings should reference the specific census tracts they plan to focus on for building upgrades/BUZ as part of their participation in the prize. Teams should also explain which building types (low-income housing, underserved commercial, schools, etc.) they plan to upgrade within the specific DOE-designated Justice40 census tracts.

2. **Affordable housing and housing occupied by low-income residents.** Low-income households face a disproportionately higher energy burden, defined as the percentage of gross household income spent on energy costs.<sup>11</sup> According to DOE's [Low-Income Energy Affordability Data \(LEAD\)](#)

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<sup>8</sup> See more information on the Justice40 Initiative at <https://www.whitehouse.gov/environmentaljustice/justice40/>.

<sup>9</sup> The OMB interim Justice40 Initiative implementation guidance is available at <https://www.whitehouse.gov/wp-content/uploads/2021/07/M-21-28.pdf>.

<sup>10</sup> More information on the CEJST's definition of disadvantaged communities can be found at <https://screeningtool.geoplatform.gov/en/about>.

<sup>11</sup> More information on DOE resources for low-income households is available at <https://www.energy.gov/eere/slsc/low-income-community-energy-solutions>.

[Tool](#),<sup>12</sup> the national average energy burden for low-income households is 8.6%, nearly three times higher than for non-low-income households, which is estimated at 3%.

The following building types fit within this equity-eligible buildings category:

- a. **Subsidized affordable housing**, such as public housing, Project-Based Section 8 housing, housing subsidized by the Low-Income Housing Tax Credit, rural housing subsidized by U.S. Department of Agriculture programs, and affordable housing subsidized by other federal, state, or local funding.
- b. **Naturally occurring affordable rental housing**, or non-subsidized housing that provide affordable rents for households at the 80% level of area median income.<sup>13</sup> Teams can consider any multifamily building located in a U.S. Department of Housing and Urban Development (HUD)-designated low-income housing tax credit “qualified census tract” as meeting these criteria.<sup>14</sup>
- c. **Homes occupied by low-income households**, or households whose total income falls below a certain threshold. These homes can include all housing types, including single family, multifamily, and manufactured housing. For this prize, teams may use the Weatherization Assistance Program eligibility definition of low income, which is 200% of the poverty level or 60% of state median income. Teams may also choose to use the definition of 80% of area median income, the income level that qualifies households for full low-income rebates through the Inflation Reduction Act Home Rebate program.

Teams that use this approach to define their equity-eligible buildings should specify which of these affordable and low-income housing options they plan to upgrade and how they will identify the specific housing units for building upgrades during the later stages of the prize. For purposes of this prize, teams can consider an entire multifamily building as an equity-eligible building if greater than 50% of resident households are at 80% or less of area median income.

3. **Underserved commercial, nonprofit, and public buildings.** The underserved commercial and nonprofit sector includes many organizations and building types that provide vital services to communities and can experience high energy and building maintenance costs. These high costs can inhibit wealth-building and economic development on the commercial side and direct crucial resources away from services to the community on the nonprofit side. The following building types provide a framework for possible types of commercial buildings that could fit within this equity-eligible buildings category:
  - a. **Buildings used by small, disadvantaged businesses**,<sup>15</sup> which include small businesses that are majority minority-owned, women-owned, or veteran-owned. These businesses can own or lease their operating space.
  - b. **Buildings used by businesses that serve disadvantaged communities**, especially businesses whose benefits or service offerings remain within the community.

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<sup>12</sup> The LEAD Tool is available at <https://www.energy.gov/eere/slsc/maps/lead-tool>.

<sup>13</sup> HUD defines affordable housing as “housing on which the occupant is paying no more than 30 percent of gross income for housing costs, including utilities.” See <https://archives.hud.gov/local/nv/goodstories/2006-04-06glos.cfm>.

<sup>14</sup> HUD-designated qualified census tracts for the low-income housing tax credit must have 50 percent of households with incomes below 60 percent of the area median gross income or have a poverty rate of 25 percent or more. Data on qualified census tracts are available at <https://www.huduser.gov/portal/datasets/qct.html>.

<sup>15</sup> The federal definition of a “small disadvantaged business” is available here: <https://www.sba.gov/federal-contracting/contracting-assistance-programs/small-disadvantaged-business>.

- c. **Title I schools**,<sup>16</sup> or schools with high percentages of students qualifying for free and reduced-cost lunch, high percentages of students from low-income families, or located in rural or remote areas. Applicants can use this DOE mapping tool to identify Title I schools: <https://energyjustice-schools.egs.anl.gov/>.
- d. **Buildings used by nonprofit organizations**<sup>17</sup> that provide localized community services, such as emergency shelters, meal service centers, arts and culture organizations, and environmental, economic, and housing justice organizations. These nonprofits can own or lease their operating space.
- e. **Buildings that provide critical community services**, such as public community centers, libraries, emergency service providers, and childcare centers.
- f. **Buildings designated or planned to be designated for use as resilience hubs or disaster shelters**. These buildings are community-serving facilities augmented to support residents, coordinate communication, distribute resources, and provide temporary shelter during emergency and disaster relief situations. Resilient hubs aim to provide healthy buildings and energy security through efficient building design and operation, integration of renewables, and low-carbon backup power (such as batteries).
- g. **Other commercial or nonprofit buildings defined as equity-eligible through community input**. See details below on how a team can make this determination.

Teams that use this approach to defining their equity-eligible buildings should specify which underserved commercial, nonprofit, and public building types they plan to focus on and how they will identify the specific buildings or units for building upgrades during later stages of the prize. Buildings UP recognizes that addressing underserved commercial, nonprofit, or public buildings is complex. Applicants should use their narratives to describe how upgrading these buildings would benefit the local community.

4. **Locally defined equity-eligible buildings** as defined or identified by the local community of the prize applicant team. DOE recognizes that community-based organizations, local governments, community leaders, and other local stakeholders have on-the-ground knowledge of underserved communities and disadvantaged areas not necessarily captured by national datasets or the categories above. The Office of Management and Budget Memo M-21-28: Interim Implementation Guidance for the Justice40 Initiative<sup>18</sup> includes factors that can help a team to create its own local definition of equity-eligible buildings. The memo lists the following variables for consideration:
  - Low income, high and/or persistent poverty
  - High unemployment and underemployment
  - Racial and ethnic residential segregation, particularly where the segregation stems from discrimination by government entities
  - Linguistic isolation
  - High housing cost burden and substandard housing

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<sup>16</sup> Title I, Part A (Title I) of the Elementary and Secondary Education Act provides financial assistance to local educational agencies and schools with high numbers or high percentages of children from low-income families. More information on the program is available at <https://www2.ed.gov/programs/titleiparta/index.html>.

<sup>17</sup> A building owned, operated, or leased by an organization that is described in section 501(c)(3) of the Internal Revenue Code of 1986 and exempt from tax under section 501(a) of such Code.

<sup>18</sup> This memo is available at <https://www.whitehouse.gov/wp-content/uploads/2021/07/M-21-28.pdf>.

- Distressed neighborhoods
- High transportation cost burden and/or low transportation access
- Disproportionate environmental stressor burden and high cumulative impacts
- Limited water and sanitation access and affordability
- Disproportionate impacts from climate change
- High energy cost burden and low energy access
- Jobs lost through the energy transition
- Access to healthcare

Additionally, for the purpose of this Prize, buildings on non-federally recognized tribal lands may also be eligible as locally defined equity-eligible buildings.

Teams that use this approach to defining their equity-eligible buildings should specify which criteria they are using to define their equity-eligible buildings, which can come from the categories listed above or from a team's local knowledge. Teams using this approach should also specify which neighborhoods and/or specific building types they will focus on and how they fit within the overall goals of the Justice40 Initiative. Finally, teams should share how they will approach upgrades for specific buildings during later stages of the prize.

Buildings UP understands that teams' plans for their Equity-Centered Innovation Pathway focus may change as they deepen community engagement and planning efforts. Teams should describe how they plan to reduce the risk of housing or leased space cost increases and/or displacement of current residents, businesses, and nonprofit organizations through the investments that will be made through their future building upgrades.

## 4 Phase 2 Planning Prize: Submission Requirements and Review Process

In Phase 2, Phase 1 winning teams will build on their Concept Plans developed in Phase 1 and develop Pilot Implementation Plans for pilot building upgrade initiatives. The Pilot Implementation Plan should describe the buildings where pilot demonstrations of building upgrades will occur.

### 4.1 How to Enter

Phase 1 winning teams interested in continuing to Phase 2 of Buildings UP should go to [HeroX](#) and follow the instructions for submitting all required materials before the specified Phase 2 submission deadline.

### 4.2 What to Submit

Competitors applying for the Buildings UP Planning Prize should complete the Planning Prize submission form on the HeroX platform. The form sections are described below.

The following items are required for each submission:

**Table 1. Submission Items for Phase 2 Planning Prize**

Item	Will Be Made Public <sup>19</sup>	Scored Item
Eligibility Information	No	No
Team Information	Partial	No
Pilot Implementation Plan Narratives	No	Yes
Supporting Documentation	No	Yes
Pilot Initiative Pitch Deck*	Yes	No

\* Each participating team is invited to present their Pilot Initiative Pitch Deck at a hybrid event in September 2024 (in-person attendance encouraged but not required). The pitch will not be scored. The event provides an opportunity to learn what others are planning and to get feedback on your Pilot Initiative. Participating teams may be advised on pitch deck content by their technical assistance providers.

### 4.3 How Submissions Will Be Scored

Phase 2 submissions describing the team’s building upgrade initiative will be evaluated on ten critical success factors vital for successful implementation. By the end of Phase 2, winning teams will have developed Pilot Implementation Plans that demonstrate a holistic and thoughtful approach to each critical success factor. Recognizing that each team will be navigating a different set of challenges, the critical success factors are intended to ensure teams have thoughtfully considered each area vital for implementation rather than prescribing a certain solution or approach.

#### Phase 2 Critical Success Factors

1. Team and Pilot Initiative Administration Budget
2. Community and Stakeholder Engagement
3. Pilot Initiative Technologies, Goals, and Building Upgrade Zone
4. Funding and Financing Building Upgrades
5. Workforce & Supply Chain Capacity
6. Customer Acquisition Strategy and Approval Process
7. Quality Assurance
8. Risk Assessment & Mitigation Strategies
9. Scalability & Replicability
10. Innovation

Each of the critical success factors will be evaluated on a pass/fail basis. The minimum requirements for passing are outlined for each critical success factor. Suggested best practices are also provided for each critical success factor, and while not required, these practices are intended to offer helpful guidance for team planning. Technical Assistance providers are available to assist teams in each critical success factor topic. Teams must meet the minimum requirements in all ten critical success factors (i.e., pass all ten

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<sup>19</sup> Competitors who do not want the Concept Plan or other documents to be made public will need to mark them according to the instructions in Appendix 1 (Section A.10).

critical success factors) to receive the Phase 2 award. Phase 2 submissions will be accepted during an 18-month period expected to begin in October 2023. During this period, submissions will be evaluated, and awarded as appropriate, on a quarterly basis beginning in 2024. Teams with applications not receiving a passing score in all ten critical success factors will be permitted to re-submit a revised application during the 18-month period. All applications (i.e., initial submissions and re-submissions) must be received by the end of the 18-month period. Teams may only resubmit an application once.

Teams that meet the minimum requirements in all ten critical success factors will receive \$200,000 or \$400,000, depending on their pathway (Open-Innovation or Equity-Centered Innovation Pathways, respectively). Additional “Innovation Awards” will be available at the closing of Phase 2 (Spring 2025).

“Equity-Centered Innovation Pathway only” and “Additional Equity-Centered Innovation Pathway Considerations/Requirements” indicate items associated only with the Equity-Centered Innovation Pathway. All submission items listed are required unless specifically marked as optional.

## 4.4 Submission Package Details

Each submission item is described below. Suggested narrative content and supporting documentation associated with the Pilot Implementation Plan are described for each of the ten critical success factors in Section 4.4.3.

### 4.4.1 Eligibility Questions

Organizations applying for the Phase 2 Planning prize must meet requirements in Section 3.3 and be a winning Phase 1 team.

### 4.4.2 Team Information Questions

List basic information about your team. Responses to questions with an asterisk (\*) may be made public.

- Team name\*
- Team image (optional)\*
- Team location(s)\* (city and/or state where building upgrade initiative is anticipated to take place)
- Lead Organization name\*
- Team Member Organizations\* (as known at time of submission) include organization name, website (optional), and POC name/email/phone number from each Team Member Organization.
- Designated Prize Recipient(s) (legal entity that can receive prize funds; may be different from the Lead Organization and may be a fiscal sponsor): up to two Prize Recipients may be identified for Equity-Centered Innovation Pathway teams and one Prize Recipient may be specified for Open Innovation Pathway teams. More information on the distribution of prize funds can be found in Sections A2 and A3 of the Appendix.
- Prize Pathway\* (Equity-Centered Innovation Pathway OR Open Innovation Pathway).
- Which technologies does your concept plan include?
  - Efficient electric heating and cooling equipment (i.e., heat pumps and/or heat pump water heaters, geothermal heat-pumps).
  - Weatherization and envelope improvements (e.g., insulation, air sealing, window improvements) where needed to reduce energy costs.
  - Efficient electric appliances
  - Electric vehicle chargers
  - On-site and community solar

- Electric panel upgrades
- Building controls
- Energy storage
- other
- Please estimate how many buildings you plan to target for your full-scale building upgrade initiative in the next five years:
  - 1) 1 building
  - 2) 2-10 buildings
  - 3) 10-100 buildings
  - 4) 100-999 buildings
  - 5) 1000+ buildings

## 4.4.3 Pilot Implementation Plan and Supporting Documentation

### 4.4.3.1 Critical Success Factor 1: Team and Pilot Initiative Administrative Budget

Both Pathways: The team implementing the Pilot should include members capable of implementing all elements of the Team’s initiative. All team member organizations should be staffed and resourced appropriately to carry out their tasks related to the Pilot Implementation Plan. The budget and staffing table should include total costs to administer the pilot initiative and associated funding sources. Staff members may be added during Phase 3.

Additional Equity-Centered Innovation Pathway Requirement: Teams must include at least one team member from a community-based organization (CBO) or entity representing the community where building upgrades are anticipated. This team member must be leading the initiative or significantly contributing to multiple critical success factors of the Pilot initiative. Decision-making power must be shared among team members and the budget allocated to the CBO or entity representing the community must be adequate for it to carry out its responsibilities within the Pilot initiative. Teams should indicate which organization on the team should receive what portion of the prize funding if two Prize Recipients are included on the team.

#### What to submit:

##### 1) Narrative

**Suggested Content:** Identify the team members and partners (e.g., organizations outside of your team such as a financing partner, utility, mayor’s office, CBOs or other entities representing the community) needed to make the pilot a success. For teams planning upgrades in multiple communities, members and partners may participate with respect to specific communities. Include a list of team members and their associated role in the pilot initiative. Include your administrative budget for the pilot initiative, describing overall pilot initiative costs and clearly delineating funding amounts for each team member. Include letters of support or agreements verifying the level of effort or commitment by each team member. Indicate which organizations have decision-making power over which areas of the pilot initiative.

##### 2) Supporting Documentation:

- a. Budget and staffing table noting roles and responsibilities to implement the Pilot initiative. Indicate which organizations have decision-making power over which areas of the pilot and how much funding each organization will allocate for this effort. Clearly indicate who will receive Prize funding (i.e. the Designated Prize Recipient). For Equity-Centered Pathway, indicate whether the prize funding should be sent to one or two recipients and what amount should be sent to each Designated Prize Recipient. (Use Buildings UP template or provide your own.)

- b. Letters of support and/or agreements from team member and partner organizations indicating the level of effort or commitment dedicated to the pilot initiative. Include acknowledgement of prize funding allocation for the second Prize Recipient if applicable (only applicable to Equity-Centered Pathway teams with two Prize Recipients).

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The following table describes the minimum requirements for teams to pass and best practices for teams to strive for.

Minimum	Best Practices
<p><b>Both Pathways</b></p> <ul style="list-style-type: none"> <li>• Team members reflect the capabilities necessary to implement a successful Pilot Initiative</li> <li>• At least one FTE is dedicated to the Pilot initiative (may be spread across multiple people/organizations)</li> <li>• Budget is adequate for all partners to carry out their tasks</li> <li>• Team includes supporting documentation verifying each team members' involvement in the effort</li> </ul> <p><b>Equity-Centered Innovation Pathway</b></p> <ul style="list-style-type: none"> <li>• Team includes a CBO or entity representing the community being served that have a lead role in, or significantly contribute to decision-making <u>in at least half</u> of the Critical Success Factors and consulted on decision-making for all Critical Success Factors.</li> </ul>	<p><b>Both Pathways</b></p> <ul style="list-style-type: none"> <li>• More than one full-time equivalent (FTE) is dedicated to the Pilot initiative (may be spread across multiple people/ organizations).</li> </ul> <p><b>Equity-Centered Innovation Pathway</b></p> <ul style="list-style-type: none"> <li>• Team includes one or more CBOs or entities representing the community being served that have a lead role in decision-making <u>in every</u> Critical Success Factor.</li> </ul>

#### 4.4.3.2 Critical Success Factor 2: Community and Stakeholder Engagement

Both Pathways: Meaningful engagement with both community members and other stakeholders is necessary for designing a successful Pilot initiative.

**Community engagement** is designed to reach specified communities such as those that may be impacted by building upgrades and to the extent applicable communities that have been historically marginalized from decision-making or have experienced disproportionately high burdens and low benefits from previous policies and programs.

**Stakeholder engagement** focuses on engaging with people or organizations that have historically been recognized as having a direct stake in an initiative and its effects, and stakeholders from other sectors that could be strong contributors to the initiative (e.g., health or housing organizations, business improvement districts, neighborhood organizations).

**Public outreach** is meant to primarily inform and broadly appeal to the public, typically without specifying populations.

Teams should engage a full, diverse range of stakeholders and are encouraged to include all entities needed for success, including any that were not part of their Phase 1 Concept Plan. Teams should foster active participation by building occupants, residents and other individuals who may be impacted by the

proposed building upgrades. Strong CBO or entity representing the community involvement is required for teams competing in the Equity-Centered Innovation Pathway and highly encouraged for teams in the Open Innovation Pathway. Engagement should address community priorities and concerns. Teams are encouraged to describe how engagement inputs informed the Pilot Implementation Plan and detail plans for continuing community and stakeholder engagement activities throughout the Pilot initiative.

Examples of meaningful engagement include activities such as hosting interactive workshops, attending and participating in community forums, co-designing initiative plans, participatory budgeting, creating a community advisory board or oversight committee, and entering into a memorandum of understanding (MOU), community benefits agreement, project labor agreement, or community workforce agreement. Engagement that does not meet the minimum requirements include solely making presentations, fact sheets or soliciting input from surveys and focus groups that does not go beyond consultation. Teams may want to reference the [Spectrum of Community Engagement](#)<sup>20</sup> resource or and the [R2E2 Engaging Stakeholders webinar](#) for details on meaningful community and stakeholder engagement.

Additional Equity-Centered Innovation Pathway Consideration: Teams should *center* social and racial equity in their decisions and Pilot Implementation Plan and show evidence of meaningful engagement with occupants and building owners in the Building Upgrade Zone (BUZ). Teams should tailor solutions like building upgrades to the barriers and needs of the specific community to ensure that solution will truly benefit them without displacement or gentrification. Best practice would be to ensure that building upgrades are also improving the economic status and/or mobility of the individuals who utilize the buildings.

#### What to submit:

##### 1) Narrative

**Suggested Content:** List the key community members and stakeholders you engaged with in Phase 2. Summarize the community and stakeholder engagement processes, community priorities and concerns, and outcomes from your community and stakeholder engagement work in Phase 2. Indicate how this input helped shape the Pilot initiative. Describe your plans for ongoing community involvement and stakeholder engagement throughout the Pilot initiative.

##### 2) Supporting Documentation

- a. Engagement Tracker: List dates of engagement activities, engagement type, number of attendees/individuals reached, and any major learnings/outcomes. (Use Buildings UP template or provide your own.)
- b. Letters of support (optional) or other means of demonstrating resident/occupant support for the initiative.

The following table describes the minimum requirements for teams to pass and best practices for teams to strive for.

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<sup>20</sup> <https://movementstrategy.org/wp-content/uploads/2021/08/The-Spectrum-of-Community-Engagement-to-Ownership.pdf>

Minimum	Best Practices
<p><b><i>Both Pathways</i></b></p> <ul style="list-style-type: none"> <li>• Team describes a meaningful <u>community engagement</u> process undertaken in Phase 2</li> <li>• Team describes meaningful <u>stakeholder engagement</u> process undertaken in Phase 2</li> <li>• Team demonstrates meaningful engagement with building owners and occupants in the BUZ</li> <li>• Team provided translation to non-English speaking populations, where applicable</li> <li>• Inputs from the community and stakeholders were incorporated into the Pilot initiative design</li> </ul> <p><b><i>Equity-Centered Innovation Pathway</i></b></p> <ul style="list-style-type: none"> <li>• Team describes a comprehensive engagement process that included the following: <ul style="list-style-type: none"> <li>○ CBOs or entity representing the community</li> <li>○ Affordable housing organizations</li> <li>○ Economic and workforce development organizations</li> <li>○ Health and safety professionals</li> <li>○ Financing organizations</li> <li>○ Racial and social equity organizations</li> </ul> </li> </ul>	<p><b><i>Both Pathways</i></b></p> <ul style="list-style-type: none"> <li>• Team provided <u>numerous ways to meaningfully engage</u> with building owners and occupants in the BUZ</li> <li>• Team provided a detailed description of how community input was included in their initiative scope and/or design</li> <li>• The team describes opportunities for ongoing stakeholder and community engagement in Phase 3</li> <li>• Team demonstrates that residents in the BUZ are supportive of the Pilot initiative</li> </ul>

**4.4.3.3 Critical Success Factor 3: Pilot Initiative Technologies, Goals, and Building Upgrade Zone (BUZ)**

Both Pathways: The building upgrade technologies offered in the Pilot initiative should be based on analysis of the building stock in the community to ensure the offered upgrades are appropriate for the building type and climate zone. Teams can engage technical assistance providers to support this analysis during Phase 2. The installation goals should represent an increase over business-as-usual installations. Multiple benefits may be incorporated into the Pilot initiative (e.g., reducing energy burdens, achieving long-term housing affordability and stability, reducing pollution, building local workforce). This prize is subject to the National Environmental Policy Act (NEPA) (42 U.S.C. § 4321, et seq.). For more information, refer to Appendix A.14.

Additional Equity-Centered Innovation Pathway Consideration: At least 80% of the upgrades anticipated will be in equity-eligible buildings.

**What to submit:**

**1) Narrative**

**Suggested Content:** Describe any major changes between your Phase 1 Concept Plan and this Pilot Initiative Implementation Plan. Summarize the analysis conducted to determine your BUZ, eligible buildings, and appropriate technologies for the climate zone and building type. Include an overview of the results as well as supporting documentation such as ResStock™ or ComStock™ reports, paired with supplemental facility-level or other analysis, to determine your Pilot initiative technologies and BUZ. Indicate the current number of annual installations of the upgrade technologies included in your Pilot initiative for your BUZ and state your installation goals in your BUZ for each technology during the pilot period. List the characteristics and geographic area of buildings where pilot demonstration projects will take place if known or expected to take place.

**2) Supporting Documentation:**

- a. Analysis summary or reports: ResStock, ComStock, or other analysis reports used to confirm your Pilot technologies and BUZ.
- b. Cutsheets of selected equipment/materials.
- c. Letters of support from building owners confirmed to participate in pilot initiative demonstration projects.

The following table describes the minimum requirements for teams to pass and best practices for teams to strive for.

Minimum	Best Practices
<p><b><i>Both Pathways</i></b></p> <ul style="list-style-type: none"> <li>• Team completed analysis that demonstrates the Pilot initiative technologies are appropriate for the targeted building types and climate zone</li> <li>• The BUZ includes a portfolio of buildings</li> <li>• Installation goals represent a <u>moderate increase</u> over business-as-usual/baseline installations</li> <li>• The team identified metrics for the Pilot initiative and has a plan in place for measuring those metrics</li> <li>• The team <u>develops a process for addressing energy-related health and safety priorities</u><sup>21</sup> as part of their building upgrades.</li> </ul>	<p><b><i>Both Pathways</i></b></p> <ul style="list-style-type: none"> <li>• The BUZ includes a portfolio of buildings with multiple building types</li> <li>• The installation goals represent a <u>significant increase</u> over business-as-usual/baseline installations (e.g., doubling installations, making upgrades in an important building type for the community)</li> <li>• The pilot initiative <u>includes additional energy-related health and safety improvements</u> in the building upgrades within their Pilot initiative offerings.</li> </ul> <p><b><i>Equity-Centered Innovation Pathway</i></b></p>

<sup>21</sup> Examples of health and safety measures can be found at <https://www.energy.gov/scep/wap/weatherization-health-safety>.

<p><b><i>Equity-Centered Innovation Pathway</i></b></p> <ul style="list-style-type: none"> <li>• <u>A minimum of 80%</u> of the buildings identified for upgrades in the BUZ are equity-eligible buildings</li> <li>• The Pilot Implementation Plan incorporates <u>at least one additional benefit</u> (beyond upgrade and expected energy cost reduction) for impacted communities (e.g., training local workforce, increased housing stability)</li> </ul>	<ul style="list-style-type: none"> <li>• <u>More than 80%</u> of the buildings identified for upgrades in the BUZ are equity-eligible buildings.</li> <li>• The Pilot initiative includes a plan to incorporate additional community priorities identified through community and stakeholder engagement</li> <li>• The Pilot Implementation plan incorporates <u>multiple benefits</u> (beyond building upgrade and energy cost reduction) for impacted communities (e.g., training local workforce, increased housing stability)</li> </ul>
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#### 4.4.3.4 Critical Success Factor 4: Funding and Financing Building Upgrades

Both Pathways: The building upgrade technologies offered in the Pilot initiative should be evaluated for installation and operational costs. An analysis of how much of the cost should be covered by available financing and funding programs should be done prior to establishing the financial offering of the Pilot initiative. Teams should establish agreements with financing and funding partners interested in supporting the Pilot initiative.

Additional Equity-Centered Innovation Pathway Consideration: At least 75% of the building upgrade costs should be covered for upgrades in equity-eligible buildings.

**What to submit:**

**1) Narrative:**

**Suggested Content:** Summarize the analysis conducted to determine your financial offering in the Pilot initiative. Include an overview of the results as well as supporting documentation from the analysis you used to determine your Pilot initiative financial offering. Demonstrate that the financial offering is robust enough to meet your Pilot initiative installation goals.

**Please refer to letters of support or agreements attached to CSF 1 that pertain to funding and financing your Pilot initiative.** Financial institutions, utilities, philanthropic partners, etc. should be listed in your narrative.

**2) Supporting Documentation:** Financial and economic analysis summary or report.

The following table describes the minimum requirements for teams to pass and best practices for teams to strive for.

Minimum	Best Practices
<i>Both Pathways</i>	<i>Both Pathways</i>

<ul style="list-style-type: none"> <li>• The analysis completed shows that the Pilot initiative financial package is robust enough to meet its installation goals</li> <li>• An agreement with at least one financial provider has been established.</li> </ul> <p><b><i>Equity-Centered Innovation Pathway</i></b></p> <ul style="list-style-type: none"> <li>• The Pilot initiative’s financial package is compatible with financing requirements for affordable housing and/or disadvantaged commercial subsidies and covers <u>at least 75%</u> of the cost of upgrade costs of upgrades for buildings in the BUZ</li> <li>• The team includes documentation verifying that pilot demonstration building owners, if already in place, agree that the proportion of costs covered by the funding and/or financing loan rate is acceptable</li> <li>• The team describes a plan for ensuring easy access to funding for building owners and/or occupants.</li> </ul>	<ul style="list-style-type: none"> <li>• Pilot initiative customers have <u>multiple options</u> for paying for building upgrades (e.g., rebates, low-cost financing, utility bill financing).</li> </ul> <p><b><i>Equity-Centered Innovation Pathway</i></b></p> <ul style="list-style-type: none"> <li>• The team’s financial package <u>covers 100% of the cost</u> of upgrades for buildings in the BUZ, including health and safety measures if needed to enable a building upgrade (for at least one initiative upgrade offering as described in Critical Success Factor 3).</li> </ul>
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#### 4.4.3.5 Critical Success Factor 5: Workforce & Supply Chain Capacity

Both Pathways: Availability of contractors to install efficient electric equipment and perform energy efficiency upgrades will vary widely across the country. Teams should evaluate their local workforce to ensure trained contractors are available for the Pilot initiative or put a plan in place for developing the local workforce. Teams should also work with suppliers of efficient electric equipment to secure the equipment needed for the Pilot initiative to meet its installation goals.

Additional Equity-Centered Innovation Pathway Consideration: Community Benefits Agreement or other means of promoting economic opportunities for underrepresented and under-resourced contractors and suppliers.

##### What to submit:

##### 1) Narrative

**Suggested Content:** Describe your process for assessing workforce capacity and how you determined whether enough local contractors are trained and available to install building upgrades. Describe how you will address any deficiencies through workforce development and training, if applicable. Describe how you assessed the current supply chain and availability of technologies needed, and how you will address deficiencies, if applicable, to meet your Pilot initiative goals. Summarize the results from the analyses.

**Please refer to letters of support or agreements attached to CSF 1 that pertain to workforce and supply chain capacity.** Workforce partners such as local high school trades programs, union

apprenticeships, training providers, contractors, distributors and/or suppliers, etc. supporting your Pilot initiative should be listed in your narrative.

The following table describes the minimum requirements for teams to pass and best practices for teams to strive for.

Minimum	Best Practices
<p><b><i>Both Pathways</i></b></p> <ul style="list-style-type: none"> <li>• The workforce assessment shows there are enough trained contractors available to install building upgrades, OR a plan is presented for developing the local workforce</li> <li>• The assessment completed shows that equipment suppliers have the capacity to fulfill demand in the BUZ, OR a plan is presented to address deficiencies supply chain efficiencies</li> <li>• The team verified that all workers involved in the assessment and installation process (e.g. energy auditor, HVAC technicians, plumbers, electricians) are trained to meet state and local requirements.</li> </ul> <p><b><i>Equity-Centered Innovation Pathway</i></b></p> <ul style="list-style-type: none"> <li>• A Community Benefits Agreement or other agreements are in place to ensure economic opportunities and jobs that adhere to the Department of Labor’s Good Jobs Initiative<sup>22</sup> for underrepresented and/or under resourced contractors and suppliers where deficiencies exist.</li> </ul>	<p><b><i>Both Pathways</i></b></p> <ul style="list-style-type: none"> <li>• The team has a workforce development plan in place to significantly increase the number of trained contractors and/or suppliers in the local area if needed and has included agreements with supporting suppliers.</li> </ul> <p><b><i>Equity-Centered Innovation Pathway</i></b></p> <ul style="list-style-type: none"> <li>• The team has put <u>robust programs in place to ensure economic opportunities and jobs that adhere to good jobs principles<sup>23</sup></u> for underrepresented and/or under resourced contractors and suppliers.</li> </ul>

#### 4.4.3.6 Critical Success Factor 6: Customer Acquisition Strategy and Approval Process

Both Pathways: Having a clear understanding of your potential Pilot initiative customer is vital to meeting your Pilot initiative goals. Outreach should be tailored to the target audience and accessing the Pilot

<sup>22</sup> <https://www.dol.gov/general/good-jobs/principles>

<sup>23</sup> <https://www.dol.gov/general/good-jobs/principles>

initiative should be clear and straightforward. The Pilot initiative should be comprehensive in explaining any approvals (e.g., permits, historic preservation) customers may need to complete upgrades.

**What to submit:**

**1) Narrative**

**Suggested Content:** Describe your target audience and how you will reach potential Pilot initiative customers. If you have already confirmed pilot locations, provide letters of support confirming building participation. Describe how these locations represent your target audience and how additional similar locations would be reached following the pilot. Describe the steps to participate in the Pilot initiative and how customers will access initiative offerings. Include initiative eligibility requirements and steps needed to prepare for the building upgrade (e.g., energy audit, health and safety upgrades). Please describe any potential approvals (e.g., historic preservation, homeowner association, building permits) needed to make the upgrades offered in your Pilot initiative. Indicate how the Pilot initiative addresses and plans to address these items.

**2) Supporting Documentation:** Marketing material mock-ups (e.g., advertising, website, program swag), letters of support from pilot participants (if already confirmed).

The following table describes the minimum requirements for teams to pass and best practices for teams to strive for.

Minimum	Best Practices
<p><i>Both Pathways</i></p> <ul style="list-style-type: none"> <li>• The team has articulated specific audiences for the Pilot initiative OR has secured pilot locations matching their intended audience.</li> <li>• The outreach plan utilizes channel strategies that are likely to engage the target audience.</li> <li>• Steps to participate in the Pilot initiative are clear and straightforward.</li> <li>• The team <u>identifies what approvals must be obtained</u> including historic preservation, homeowner associations and building permits.</li> <li>• The team includes documentation showing support from building owners and tenants participating in the pilot demonstration project(s), if already identified.</li> </ul>	<p><i>Both Pathways</i></p> <ul style="list-style-type: none"> <li>• The Pilot initiative includes a “one-stop-shop” approach for customers that is clear and straightforward.</li> <li>• The team <u>provides support to obtain any required approvals</u> including historic preservation, homeowner associations, and building permits.</li> <li>• The team has contracts/agreements in place with trusted community partners to help with participant outreach.</li> </ul>

**4.4.3.7 Critical Success Factor 7: Quality Assurance**

Both Pathways: Quality Assurance (QA) plans help ensure high-quality installations of efficient electric equipment and energy efficiency measures, and satisfied customers. To address QA, the Pilot Implementation Plan should incorporate industry consensus standards for the design, installation, maintenance, repair and verification of installed systems such as heating, ventilation, and air

conditioning. One example of such procedures are the Air Conditioning Contractors of America standards available online at [Quality Standards – ACCA](#).

**What to submit:**

**1) Narrative**

**Suggested Content:** Please describe the elements of your Pilot initiative that will ensure installations are of high-quality and that initiative participants have a positive experience. Please include any other quality assurance aspects of your Pilot initiative.

**2) Quality Assurance Plan** (use Buildings UP template or provide your own)

The following table describes the minimum requirements for teams to pass and best practices for teams to strive for.

Minimum	Best Practices
<p><b><i>Both Pathways</i></b></p> <ul style="list-style-type: none"> <li>• The Pilot initiative quality assurance plan addresses installation quality and customer satisfaction.</li> <li>• The quality installation portion of the plan promotes proper sizing, design and installation of heat pumps and heat pump water heaters and proper installation of weatherization measures (where needed) at a minimum</li> <li>• The quality assurance plan has clear steps for a process to address grievances from unsatisfied customers</li> <li>• The quality assurance plan <u>requires a cost analysis</u> and customer acknowledgement be completed prior to installing efficient electric equipment to demonstrate energy and cost savings for occupants and owners.</li> </ul>	<p><b><i>Both Pathways</i></b></p> <ul style="list-style-type: none"> <li>• The quality assurance plan <u>includes an energy audit in its offering</u> prior to installing efficient electric equipment to ensure energy and cost savings for occupants and owners</li> <li>• Contractors use smart diagnostic tools to ensure proper installation of equipment (e.g., Smart Tools for Efficient HVAC Performance (STEP) Campaign).<sup>24</sup></li> </ul>

### 4.4.3.8 Critical Success Factor 8: Risk Assessment & Mitigation Strategies

**Both Pathways:** Potential negative impacts from building upgrades should be considered and mitigated throughout the planning and implementation process. A risk assessment is a process to identify potential risks and analyze what could happen if a risk event occurs.

<sup>24</sup> <https://www.pnnl.gov/projects/step-campaign>

Teams should also identify potential events that put your Pilot initiative at risk, their severity and likelihood of happening. Develop mitigation strategies for significant risks to the success of the Pilot initiative. Consider risks in each critical success factor (e.g., under Critical Success Factor 3, Technology, Goals and BUZ, consider having back up sites ready if your pilot sites become unavailable or unsuitable for a building upgrade).

Additional Equity-Centered Innovation Pathway Consideration: Safeguards to mitigate harm to disadvantaged and underserved communities should be comprehensive and transparent to the community.

**What to submit:**

**1) Narrative**

**Suggested Content:** Include a description of potential risks and mitigation strategies to ensure a successful Pilot initiative. Consider:

- a. **Risks to implementation** (e.g., changes in key personnel or organizations on the team, pilot building upgrade sites that become unavailable or unsuitable, workforce and supply chain capacity, financing and funding availability, permitting and approval processes, participation rates, community acceptance)
- b. **Risks to the community/customer where upgrades are occurring** (e.g., risks that building upgrades may lead to rent or utility bill increases, occupant displacement, gentrification, and lack of community decision-making power and influence.) Teams should specify mitigation strategies for any risks deemed significant.

**2) Supporting Documentation:** Risk Assessment Matrix or report. (Use Buildings UP template or provide your own.)

The following table describes the minimum requirements for teams to pass and best practices for teams to strive for.

<i>Minimum</i>	<i>Best Practices</i>
<p><b>Both Pathways</b></p> <ul style="list-style-type: none"> <li>• The Pilot Implementation Plan includes an assessment of risks in each critical success factor and <u>identifies measures</u> to mitigate them.</li> <li>• The Pilot Implementation Plan includes an assessment of risks associated with carrying out the pilot initiative and identifies measures to mitigate them.</li> <li>• The Pilot Implementation Plan identifies potential negative impacts to disadvantaged or underserved communities resulting from the Pilot initiative and includes mitigation strategies to protect against unintended harm for the <u>most likely or severe risks</u>.</li> </ul>	<p><b>Both Pathways</b></p> <ul style="list-style-type: none"> <li>• The Pilot Implementation Plan includes an assessment of risks in each critical success factor and <u>puts a system in place</u> to mitigate them.</li> <li>• The Pilot Implementation Plan identifies potential negative impacts to disadvantaged or underserved communities resulting from the Pilot initiative and includes mitigation strategies to protect against unintended harm <u>for all risks identified</u>.</li> </ul>

### 4.4.3.9 Critical Success Factor 9: Scalability & Replicability

Both Pathways: A well-designed Pilot initiative will test various assumptions prior to rolling out a full initiative. Teams should have a way to evaluate initiative offerings and measure whether the Pilot is successful or on track to meet its goals. The team should also consider a preliminary plan and budget for scaling the pilot to a full-scale building upgrade initiative over the next three to five years.

Teams should also describe elements of the Pilot initiative that may be replicable in other geographic areas, communities or building types.

**What to submit:**

**1) Narrative**

**Suggested Content:** Describe the BUZ planned for the full-scale initiative. Summarize the elements of your Pilot initiative to be evaluated prior to full implementation of a building upgrade initiative. Indicate what you are evaluating, how you will measure success, and how results from the Pilot may alter a full-scale initiative. Include a high-level plan for scaling the pilot to a full-scale initiative and identify elements of the initiative that could be replicated elsewhere. Include a high-level budget for implementing a full-scale building upgrade initiative.

**2) Supporting Documentation:** Budget table including a high-level budget for the full-scale building upgrade initiative. (Use Buildings UP template or provide your own.)

The following table describes the minimum requirements for teams to pass and best practices for teams to strive for.

Minimum	Best Practices
<p><i>Both Pathways</i></p> <ul style="list-style-type: none"> <li>Scaling within the BUZ: The team includes a summary of the elements the team is evaluating for scaling into a full initiative in the BUZ (i.e. questions to be answered during the pilot to inform the full implementation), and has a plan to measure results</li> <li>Scaling within the BUZ: The team has described a preliminary plan to scale the initiative to full implementation in each of the critical success factors</li> <li>The BUZ includes a portfolio of buildings</li> <li>Scaling beyond the BUZ: The team describes elements of their Pilot Initiative that could be replicated to other communities, building types or geographies.</li> </ul>	<p><i>Both Pathways</i></p> <ul style="list-style-type: none"> <li>Scaling within the BUZ: The team includes a comprehensive evaluation plan that tests all assumptions in the Pilot initiative</li> <li>Scaling within the BUZ: The team has a system for measuring progress and/or key metrics during the Pilot initiative and/or has developed a novel way of measuring success</li> <li>Scaling beyond the BUZ: The team has established initial partnerships that may lead to replication of the initiative beyond the BUZ.</li> </ul>

### 4.4.3.10 Critical Success Factor 10: Innovation

**Both Pathways:** Teams should describe the innovative or novel approach to overcoming persistent challenges to building upgrades in their community and articulate how this aspect could be applicable in other communities or for other building types.

**What to Submit:**

**1) Narrative**

**Suggested Content:** Describe the elements of your Pilot Implementation Plan that represent an innovative approach in the BUZ, the community or in the industry more broadly. Discuss whether the innovation can be applied to other communities or building types.

Examples of innovation may include items such as:

- A new approach for overcoming a persistent challenge in implementing building upgrades
- An expansion of an existing approach to a new audience or building type that is likely to overcome persistent challenges in the area
- A novel way to ensure installers are trained and installations are high-quality or to conduct quality assessments
- A new approach to creating job and economic opportunities for disadvantaged communities.
- Use of a novel technology or approach to installations (e.g., using 120-v heat pumps, ensuring all heat pump and heat pump water heater installations include communications interface CTA2045)
- Innovative funding combinations and financing to reduce upfront costs of equipment and installation, such as leveraging multiple sources of funding (e.g., combining federal rebates, state and local funding sources, and philanthropic funds to reduce the direct cost of upgrades to homeowners)
- Novel approaches to reduce soft costs (e.g., customer acquisition and maintenance, permitting, labor, quality assurance)
- Scalable and replicable initiative models that streamline the implementation of energy efficiency and efficient electrification upgrades (e.g., streamlined audits, permitting, contractor engagement, and installation)
- Attractive business models or novel approaches that incentivize manufacturers and contractors to produce and install heat pumps, insulation, and other products that enable energy efficiency and efficient electrification upgrades
- Promotion of energy efficiency and efficient electrification solutions among a broader range of stakeholders through robust stakeholder engagement, communications campaigns, setting public goals, and promoting initiative successes
- High-quality installations and upgrades for optimal performance through streamlined quality assurance/quality control and workforce training support.

**2) Supporting Documentation:** Letters of support defining the proposed activity as innovative in the BUZ, community, or industry more broadly.

The following table describes the minimum requirements for teams to pass and best practices for teams to strive for.

Minimum	Best Practices
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<p><b>Both Pathways</b></p> <ul style="list-style-type: none"> <li>The team describes an innovative or novel approach to overcoming persistent challenges to building upgrades in their community.</li> </ul>	<p><b>Both Pathways</b></p> <ul style="list-style-type: none"> <li>The team articulates how the innovation(s) can be applied to other communities or building types.</li> </ul>
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#### 4.4.4 Innovation Bonus Prizes

Buildings UP may offer bonus prizes for innovation at the conclusion of Phase 2 (est. Spring 2025). Awards may be made for innovations in the following categories:

1. Health and Safety
2. Finance and Funding
3. Workforce Development
4. Wild Card (open to any innovation)

Metrics for scoring innovation will be developed as part of the final Phase 2 rules, following opportunity for public comment.

#### 4.4.5 Pilot Initiative Pitch Deck Presentation

A Buildings UP event (in-person with a virtual participation option) will take place in Fall of 2024 where teams can learn about one another’s work and receive feedback on their pilot initiative. In person attendance is encouraged, but not required. Location, date and time are TBD. The pilot initiative pitch deck presentation may be made public.

### 4.5 How Award Winners Are Determined

The Prize Administrator screens all completed submissions and ensures that the teams are eligible. Then the Prize Administrator, in consultation with DOE, assigns subject-matter-expert reviewers who independently score the content of each submission. They will review the team’s Planning submission (combined narratives and supporting documentation) according to the evaluation criteria described in Section 4.3 and 4.4.

#### 4.5.1 Reviewer Panel Scoring and Prizes to Win

Each critical success factor will be evaluated for the minimum requirements. Teams that do not meet the minimum requirements in one or more critical success factors will not win a Prize.

DOE may decide to interview a subset of teams. The interviews would be held prior to the announcement of the winners and would serve to help clarify questions the reviewers may have. Participating in interviews is not required, and interviews are not an indication of a team’s likelihood to win.

## 4.5.2 Final Determination

DOE will designate a federal employee to serve as the judge to make the final determination of the winners. Final determination of the winners by the judge will consider the reviewers' feedback, application of program policy factors, and the interview findings (if applicable).

## 4.5.3 Announcement

Approximately 30-60 days after each quarterly review period, the Prize Administrator will notify the winners and request the necessary information to distribute the prizes. The Prize Administrator will then publicly announce the winners.

## 4.5.4 Additional Terms and Conditions

See Appendix 1 for additional requirements. TEAMS THAT DO NOT COMPLY WITH THE ADDITIONAL REQUIREMENTS IN APPENDIX 1 MAY BE DISQUALIFIED.

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# Appendix 1: Additional Terms and Conditions

## A.1 Requirements

Your Buildings UP submission is subject to the following terms and conditions:

- You must post the final content of your Phase 2 submission or upload the submission form online by **5 p.m. ET on TBD** before the prize's Phase 2 submission period closes. Late submissions or any other form of submission may be rejected.
- All submissions that you wish to protect from public disclosure must be marked according to the instructions in Section A10 of this Appendix. Unmarked or improperly marked submissions will be deemed to have been provided with unlimited rights and may be used in any manner and for any purpose whatsoever.
- You must include all the required elements in your submission. The Prize Administrator may disqualify your submission after an initial screening if you fail to provide all required submission elements. Teams may be given an opportunity to rectify submission errors due to technical challenges.
- Your submission must be in English and in a format readable by Microsoft Word or Adobe PDF. Scanned hand-written submissions will be disqualified.
- Submissions will be disqualified if they contain any matter that, in the sole discretion of the U.S. Department of Energy (DOE) or the National Renewable Energy Laboratory (NREL), is indecent, obscene, defamatory, libelous, and/or lacking in professionalism, or demonstrates a lack of respect for people or life on this planet.
- If you click "Accept" on the HeroX platform and proceed to register for any of the prizes described in this document, these rules will form a valid and binding agreement between you and DOE and are in addition to the existing HeroX Terms of Use for all purposes relating to these contests. You should print and keep a copy of these rules. These provisions only apply to the prize described here and no other prize on the HeroX platform or anywhere else.
- The Prize Administrator, when feasible, may give teams an opportunity to fix non-substantive mistakes or errors in their submission packages.
- As part of your submission to this prize, you will be required to sign the following statement:

I am providing this submission package as part of my participation in this prize. I understand that I am providing this submission to the Federal Government. I certify under penalty of perjury that the named team meets the eligibility requirements for this prize competition and complies with all other rules contained in the Official Rules document. I further represent that the information contained in the submission is true and contains no misrepresentations. I understand false statements or misrepresentations to the Federal Government may result in civil and/or criminal penalties under 18 U.S.C. § 1001.

## A.2 Verification for Payments

The Prize Administrator will verify the identity and role of all teams before distributing any prizes. Receiving a prize payment is contingent upon fulfilling all requirements contained herein. The Prize Administrator will notify winning teams using the provided email contact information for the individual or entity that was responsible for the submission. Each team will be required to sign and return to the Prize Administrator, within 30 days of the date on the notice, a completed NREL Request for ACH Banking Information form and a completed W9 form (<https://www.irs.gov/pub/irs-pdf/fw9.pdf>). In the sole discretion of the Prize Administrator, a winning team will be disqualified from the competition and receive

no prize funds if: (i) the person/entity does not respond to notifications; (ii) the person/entity fails to sign and return the required documentation within the required time period; (iii) the notification is returned as undeliverable; (iv) the submission or person/entity is disqualified for any other reason.

In the event of a dispute as to any registration, the authorized account holder of the email address used to register will be deemed to be the team. The “authorized account holder” is the natural person or legal entity assigned an email address by an Internet access provider, online service provider, or other organization responsible for assigning email addresses for the domain associated with the submitted address. All teams may be required to show proof of being the authorized account holder.

## A.3 Teams and Awards

The Prize Administrator will award single dollar amounts to the designated prize recipient(s) for each winning team in the Open Innovation Pathway, whether consisting of a single or multiple entities. It is the sole responsibility of the designated prize recipient or designated prize recipients to the extent authorized elsewhere in these rules, to allocate any prize funds among its member organizations or teammates as they deem appropriate. The Prize Administrator will not arbitrate, intervene, advise on, or resolve any matters or disputes between team members. Up to two Prize Recipients may be identified for Equity-Centered Innovation Pathway teams. The Prize Administrator will issue the dollar amounts indicated in the Pilot initiative budget to each of the identified Prize Recipients.

## A.4 Submission Rights

By making a submission and consenting to the rules of the contest, a team is granting to DOE, the Prize Administrator, and any other third parties supporting DOE in the contest, an unlimited license to display publicly and to use any part(s) of the submission that are designated as “public” in the Official Rules for any government purpose. This license includes posting or linking to the public portions of the submission on the Prize Administrator or HeroX submissions, including the contest website, DOE websites, and partner websites, and the inclusion of the submission in any other media worldwide. The submission may be viewed by DOE, Prize Administrator, and judges and reviewers for purposes of the contests, including but not limited to screening and evaluation purposes. The Prize Administrator and any third parties acting on their behalf will also have the right to publicize teams’ names and, as applicable, the names of team member organizations, which participated in the submission on the contest website indefinitely.

By entering, the team represents and warrants that:

1. The team’s entire submission is an original work by the team and the team has not included third-party content (such as writing, text, graphics, artwork, logos, photographs, likeness of any third party, musical recordings, clips of videos, television programs or motion pictures) in or in connection with the submission, unless (i) otherwise requested by the Prize Administrator and/or disclosed by the team in the submission, and (ii) team has either obtained the rights to use such third-party content or the content of the submission is considered in the public domain without any limitations on use.
2. Unless otherwise disclosed in the submission, the use thereof by Prize Administrator, or the exercise by Prize Administrator of any of the rights granted by team under these rules, does not and will not infringe or violate any rights of any third party or entity, including, without limitation, patent, copyright, trademark, trade secret, defamation, privacy, publicity, false light, misappropriation, intentional or negligent infliction of emotional distress, confidentiality, or any contractual or other rights.
3. All persons who were engaged by the team to work on the submission or who appear in the submission in any manner have:

- a. Given the team their express written consent to submit the submission for exhibition and other exploitation in any manner and in any and all media, whether now existing or hereafter discovered, throughout the world;
- b. Provided written permission to include their name, image, or pictures in or with the submission (or, if a minor who is not team's child, team must have the permission of the minor's parent or legal guardian) and the team may be asked by the prize administrator to provide permission in writing; and
- c. Not been and are not currently under any union or guild agreement that results in any ongoing obligations resulting from the use, exhibition, or other exploitation of the submission.

## A.5 Copyright

Each team represents and warrants that the team is the sole author and copyright owner of the submission; that the submission is an original work of the team or that the team has acquired sufficient rights to use and to authorize others, including DOE, to use the submission, as specified throughout the rules; that the submission does not infringe upon any copyright or any other third-party rights of which the team is aware; and that the submission is free of malware.

## A.6 Contest Subject to Applicable Law

All contests are subject to all applicable federal laws and regulations. Participation constitutes each participant's full and unconditional agreement to these Official Rules and administrative decisions, which are final and binding in all matters related to the contest. This notice is not an obligation of funds; the final award is contingent upon the availability of appropriations.

## A.7 Resolution of Disputes

DOE is solely responsible for administrative decisions, which are final and binding in all matters related to the contest.

Neither DOE nor the Prize Administrator will arbitrate, intervene, advise on, or resolve any matters between team members or among teams.

## A.8 Publicity

The winners of these prizes (collectively, "winners") will be featured on DOE and NREL websites.

Except where prohibited, participation in the contest constitutes each winner's consent to DOE's and its agents' use of each winner's name, likeness, photograph, voice, opinions, and/or hometown and state information for promotional purposes through any form of media worldwide, without further permission, payment, or consideration.

## A.9 Liability

Upon registration, all participants agree to assume any and all risks of injury or loss in connection with or in any way arising from participation in this contest. Upon registration, except in the case of willful misconduct, all participants agree to and, thereby, do waive and release any and all claims or causes of action against the federal government and its officers, employees, and agents for any and all injury and damage of any nature whatsoever (whether existing or thereafter arising, whether direct, indirect, or

consequential, and whether foreseeable or not), arising from their participation in the contest, whether the claim or cause of action arises under contract or tort.

DOE has determined that no liability insurance naming DOE as an insured will be required of teams to compete in this competition per 15 U.S.C. § 3719(i)(2). Teams should assess the risks associated with their proposed activities and adequately insure themselves against possible losses.

## A.10 Records Retention and Freedom of Information Act

All materials submitted to DOE as part of a submission become DOE records and are subject to the Freedom of Information Act. The following applies only to portions of the submission not designated as public information in the instructions for submission. If a submission includes trade secrets or information that is commercial or financial, or information that is confidential or privileged, it is furnished to the Government in confidence with the understanding that the information shall be used or disclosed only for evaluation of the submission. Such information will be withheld from public disclosure to the extent permitted by law, including the Freedom of Information Act. Without assuming any liability for inadvertent disclosure, DOE will seek to limit disclosure of such information to its employees and to outside reviewers when necessary for review of the submission or as otherwise authorized by law. This restriction does not limit the Government's right to use the information if it is obtained from another source.

Submissions containing confidential, proprietary, or privileged information must be marked as described below. Failure to comply with these marking requirements may result in the disclosure of the unmarked information under the Freedom of Information Act or otherwise. The U.S. Government is not liable for the disclosure or use of unmarked information and may use or disclose such information for any purpose.

The submission must be marked as follows and identify the specific pages containing trade secrets, confidential, proprietary, or privileged information: "Notice of Restriction on Disclosure and Use of Data: Pages [list applicable pages] of this document may contain trade secrets, confidential, proprietary, or privileged information that is exempt from public disclosure. Such information shall be used or disclosed only for evaluation purposes. [End of Notice]"

The header and footer of every page that contains confidential, proprietary, or privileged information must be marked as follows: "Contains Trade Secrets, Confidential, Proprietary, or Privileged Information Exempt from Public Disclosure." In addition, each line or paragraph containing proprietary, privileged, or trade secret information must be clearly marked with double brackets.

Teams will be notified of any Freedom of Information Act requests for their submissions in accordance with 10 CFR part 1004. Teams may then have the opportunity to review materials and work with a Freedom of Information Act representative prior to the release of materials. DOE does intend to keep all submission materials private except for those materials designated as "will be made public." DOE will make its own determination about the status of the information and treat it according to its determination. DOE makes the final determination.

## A.11 Privacy

If you choose to provide HeroX with personal information by registering or completing the submission package through the contest website, you understand that such information will be transmitted to DOE and may be kept in a system of records. Such information will be used only to respond to you in matters regarding your submission and/or the contest unless you choose to receive updates or notifications about

other contests or programs from DOE on an opt-in basis. DOE and NREL are not collecting any information for commercial marketing.

## A.12 General Conditions

DOE reserves the right to cancel, suspend, and/or modify the prize, or any part of it, at any time. If any fraud, technical failures, or any other factor beyond DOE's reasonable control impairs the integrity or proper functioning of the prize, as determined by DOE in its sole discretion, DOE may cancel the prize. Any performance toward prize goals is conducted entirely at the risk of the team and DOE shall not compensate any teams for any activities performed in furtherance of this prize.

Although DOE may indicate that it will select up to several winners for each prize, DOE reserves the right to only select teams that achieve the goals of the program. If, in DOE's determination, no teams achieve the goals of the program, DOE will select no teams to be winners and will award no prize money.

## A.13 Program Policy Factors

While the scores of the expert reviewers will be carefully considered, it is the role of the prize judge to maximize the impact of prize funds. Some factors outside the control of teams and beyond the independent expert reviewer scope of review may need to be considered to accomplish this goal. The following is a list of such factors. In addition to the reviewers' scores, the below program policy factors may be considered in determining winners:

- Geographic diversity, urbanization diversity (i.e., cities, suburbs, towns, villages), and potential economic impact of projects.
- Whether the use of additional DOE funds and provided resources are non-duplicative and compatible with the stated goals of this program and the DOE mission generally.
- The degree to which the submission exhibits programmatic or technological diversity, including diversity in types of buildings served, when compared to the existing DOE project portfolio and other teams.
- The degree to which the submission is likely to lead to increased employment and manufacturing in the United States, enhance economic inclusion or provide other economic benefits to U.S. taxpayers.
- The degree to which the submission will accelerate transformational technological, financial, or workforce advances in areas that industry by itself is not likely to undertake because of technical or financial uncertainty.
- The degree to which the submission supports complementary DOE-funded efforts or projects, which, when taken together, will best achieve the goals and objectives of DOE.
- The degree to which the submission expands DOE's funding to new teams and recipients who have not been supported by DOE in the past.
- The degree to which the submission enables new and expanding market segments.
- Whether the project promotes increased coordination with nongovernmental entities and increased coordination among governmental entities (e.g., between a local and state government or between housing and energy agencies within local or state government) toward enabling a just and equitable clean energy economy in their region and/or community.
- The degree to which the submission demonstrates a best practice approach to delivering multiple benefits to the community (e.g., emissions reductions, health benefits, local workforce and contractor development, inclusive procurement practices, energy and housing affordability, preventing displacement).

- The degree to which the submission acknowledges and seeks to mitigate racial inequities caused by past and current policies.

## A.14 National Environmental Policy Act Compliance

This prize is subject to the National Environmental Policy Act (NEPA) (42 U.S.C. § 4321, et seq.). NEPA requires federal agencies to integrate environmental values into their decision-making processes by considering the potential environmental impacts of their proposed actions. For additional background on NEPA, please see DOE's NEPA website at <http://nepa.energy.gov/>.

While NEPA compliance is a federal agency responsibility and the ultimate decisions remain with the federal agency, all participants in the Buildings UP Prize will be required to assist in the timely and effective completion of the NEPA process in the manner most pertinent to their participation in the prize competition. Participants may be asked to provide DOE with information such that DOE can conduct a meaningful evaluation of the potential environmental impacts.

Project proposals limited to the following activities are more likely to receive an expedited NEPA review:

1. Administrative activities;
2. energy audits;
3. Development and implementation of programs, plans, and strategies to encourage energy efficiency and renewable energy such as policy development and stakeholder engagement;
4. Development and implementation of classroom or online training programs;
5. Development and implementation of building codes including inspection services, and associated activities to support code compliance and promote building energy efficiency;
6. Purchase of alternative fuel vehicles;
7. Replacement of existing lighting with energy efficient lighting, including light poles (includes installation in utility easements).
8. Installation of building insulation (not including spray insulation);
9. Installation of insulation on ducts, water heater tanks and heating pipes;
10. Duct sealing, insulation, repair, or replacement in unoccupied areas;
11. External weather sealing of the building shell, including caulking, weather-stripping, and other air infiltration control measures on windows and doors, and installing thresholds in a manner that does not harm or obscure historic windows or trim;
12. Interior weather sealing, including using weather stripping, door sweeps, and caulk and sealing major air leaks associated with bypasses, ducts, air conditioning units, etc.;
13. Purchase and installation of energy efficient or energy/water efficient home and commercial appliances and equipment (including, but not limited to, energy or water monitoring and control systems, thermostats, furnaces, and air conditioners);
14. Retrofit of energy efficient pumps and motors;
15. Plumbing work, including installation and replacement of water heaters;
16. Furnace or hot water tank replacement that does not require a visible new supply or venting;
17. Replacement and upgrades of existing HVAC equipment including pumps, motors, boilers, chillers, cooling towers, air handling units, package units, condensers, compressors, or heat exchangers that do not require a new location and are not visible from any public right of way, provided such work does not affect character-defining features of the building;
18. Clean, tune, repair or replace heating systems, including furnaces, boilers, heat pumps, vented space heaters, and wood stoves;
19. Clean, tune repair or replace cooling systems, including central air conditioners, window air conditioners, heat pumps, and evaporative coolers;

20. Conduct other efficiency improvements on heating and cooling systems, including replacing standing pilot lights with electronic ignition devices and installing vent dampers;
21. Modifying duct and pipe systems so heating and cooling systems operate efficiently and effectively, including adding return ducts, replace diffusers and registers, replace air filters, install thermostatic radiator controls on steam and hot water heating systems, provided such work does not affect character-defining features of the building;
22. Installation of programmable thermostats, outdoor reset controls, UL listed energy management systems or building automation systems and other HVAC control systems, provided such work does not affect character-defining features of the building;
23. Adding or replacing existing building controls systems, including HVAC control systems and the replacement of building-wide pneumatic controls, with digital controls, thermostats, dampers, and other individual sensors like smoke detectors and carbon monoxide detectors (wired or non-wired), provided such work does not affect character-defining features of the building;
24. New installation of non-hard wired devices including photo-controls, occupancy sensors, carbon dioxide, thermostats, humidity, light meters, and other building control sensors, provided the work conforms with applicable state and local permitting requirements;
25. Installation of electric vehicle supply equipment (EVSE), including testing measures to assess the safety and functionality of the EVSE, restricted to existing footprints and levels of previous ground disturbance, within an existing parking facility defined as any building, structure, land, right-of-way, facility, or area used for parking of motor vehicles. All activities must use reversible, non-permanent techniques for installation, where appropriate, use the lowest profile EVSE reasonably available that provides the necessary charging capacity; place the EVSE in a minimally visibly intrusive area; use colors complementary to surrounding environment, where possible, and are limited to the current electrical capacity. This applies to Level 1, Level 2, or Level 3 (also known as Direct Current (DC) Fast Charging) EVSE. (Not applicable to Tribal lands.)
26. Activities listed below that are:
  - a. not on Tribal lands or Tribal properties, and
  - b. are not proposed to be installed in a historical building or a building potentially eligible to be listed as historic (45 years or older), and
  - c. do not occur within a historic district, and
  - d. would not require structural reinforcement, and
  - e. would not require trees to be trimmed or removed, and
  - f. any ground disturbing activities would be confined to the boundaries of an existing facility (defined as an already disturbed area due to regular ground maintenance), and
  - g. limited to:
    - i. Retrofit and replacement of windows and doors.
    - ii. Installation of battery energy storage systems (not to exceed 1,000kWh capacity).
    - iii. Installation of waste heat recovery devices, including desuperheater water heaters, condensing heat exchangers, heat pumps and water heating heat recovery systems, and other energy recovery equipment.
    - iv. Installation of Combined Heat and Power Systems (systems sized appropriately for the buildings in which they are located, not to exceed peak electrical production at 300kW).
    - v. Installation of solar electricity/photovoltaic systems (not to exceed 60 kW).
    - vi. Installation of a wind turbine (20 kW or smaller).
    - vii. Installation of solar thermal systems (Including solar thermal hot water. Systems must be 200,000 BTU per hour or smaller).
    - viii. Installation of ground source heat pumps (5.5 tons of capacity or smaller, horizontal/vertical, ground, closed-loop systems).
    - ix. Installation of biomass thermal systems (3 MMBTUs per hour or smaller systems with appropriate Best Available Control Technologies (BACT) installed and operated, and required permits obtained).

## A.15 Return of Funds

As a condition of receiving a prize, teams agree that if the prize was made based on fraudulent or inaccurate information provided by the team to DOE, DOE has the right to demand that any prize funds or the value of other non-cash prizes be returned to the government.

ALL DECISIONS BY DOE ARE FINAL AND BINDING IN ALL MATTERS RELATED TO THE PRIZE.

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