

# ROADMAP TO NAVIGATING FEDERAL FUNDING FOR PUBLIC BUILDINGS

FUNDING FROM THE BIPARTISAN INFRASTRUCTURE LAW (BIL) AND INFLATION REDUCTION ACT FOR MUNICIPAL, UNIVERSITY, SCHOOL, AND HOSPITAL (MUSH) BUILDINGS



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The BlueGreen Alliance unites labor unions and environmental organizations to solve today's environmental challenges in ways that create and maintain quality jobs and build a clean, prosperous, and equitable economy.

Errors remain the responsibility of the authors.

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# ACRONYMS

ARP	American Rescue Plan
BGA	BlueGreen Alliance
BIL	Bipartisan Infrastructure Law
BRIC	Building Resilient Infrastructure and Communities
CBO	Community-Based (nonprofit) Organization
CDFI	Community Development Finance Institution
CEJST	Climate and Economic Justice Screening Tool
CPRG	Climate Pollution Reduction Grant
DOE	U.S. Department of Energy
DoED	U.S. Department of Education
EECBG	Energy Efficiency and Conservation Block Grants
EERLF	Energy Efficiency Revolving Loan Fund
EJ	Environmental Justice
EPA	U.S. Environmental Protection Agency
EPC	Energy Performance Contract
ESCO	Energy Savings Company
ESSER	Elementary and Secondary School Emergency Relief
FEMA	U.S. Federal Emergency Management Agency
FMA	Flood Mitigation Assistance
GGRF	Greenhouse Gas Reduction Fund
IIJA	Infrastructure Investment and Jobs Act
IRS	Internal Revenue Service
J40	Justice40
LEA	Local Education Agency
MUSH	Municipal, University, School, Hospital
MW	Megawatt
SEA	State Education Agency
SEO	State Energy Office
SEP	State Energy Program



# 1. INTRODUCTION


The 117th Congress passed historic infrastructure legislation that can be utilized to retrofit buildings, including Municipal, University, School, and Hospital (MUSH) buildings. MUSH buildings are particularly important, serving as essential community assets that represent significant opportunities to reduce greenhouse gas (GHG) emissions, improve health outcomes, build climate resilience, and support and create good, local jobs all while addressing equity and environmental justice. The objective of this roadmap is to identify the federal funding opportunities available through the Inflation Reduction Act, The Bipartisan Infrastructure Law (BIL), and, in the case of schools, the American Rescue Plan (ARP), that can be used to upgrade MUSH buildings.


Relevant legislation includes:

- **The Inflation Reduction Act:** The Inflation Reduction Act was passed by U.S. Senate and House Democrats and signed into law by President Joe Biden on August 16, 2022. It established a host of critical investments in the clean economy, including in energy efficient buildings.
- **The BIL:** The Bipartisan Infrastructure Law, also known as the Infrastructure Investment and Jobs Act (IIJA), was passed on November 15, 2021. This is a once-in-a-generation investment of \$1.2 trillion for repairing and modernizing infrastructure—including buildings—while creating good, union jobs.



**Table 1: Summary of BIL and Inflation Reduction Act Funding for MUSH Buildings**

	Public / MUSH Buildings						
	Clean Energy Tax Credits	179D Energy-Efficient Commercial Buildings Tax Deduction	State Energy Program	Energy Efficiency Revolving Loan Fund	Energy Efficiency Conservation Block Grants	Renew America's Nonprofits	Greenhouse Gas Reduction Fund
Administering Federal Agency	IRS	IRS	DOE	DOE	DOE	DOE	EPA
Implementing Agency	n/a	n/a	SEO	SEO	Local government energy or sustainability office; Tribal energy office, SEO	n/a	TBD; likely a state green bank or local CDFI
Program Type	Tax Credit	Tax Deduction	Formula Grants	Formula Grants	Formula Grants	Competitive Grants	Competitive Grants
Total Funding	Uncapped	Uncapped	\$500 Million	\$250 Million	\$550 Million	\$50 Million	\$27 Billion
Funding Source	Inflation Reduction Act	Inflation Reduction Act	BIL	BIL	BIL	BIL	Inflation Reduction Act
Program Timeline	2023-2035 (starting to phase out in 2032)	2023-2032	FY22-FY26	FY22-expended	FY22-FY24	FY22-FY26	FY22-FY24
Matching Requirements	n/a	n/a	No matching Requirement	No Matching Requirement	No Matching Requirement	TBD	No Matching Requirement
Labor Standards	Prevailing wage, registered apprenticeship requirements for larger projects	Prevailing wage, registered apprenticeship	Prevailing wage	Prevailing wage required with initial federal funding	Prevailing wage	Prevailing wage	Prevailing wage for construction projects
Domestic Content	Required to qualify for direct pay; Required to qualify for bonus credit	None	Build America Buy America requirement	Build America Buy America requirement	Build America Buy America requirement	Build America Buy America requirements	Build America Buy America requirement
Eligible Entities	Tax-exempt entities, Tribal government, local and state government, utilities, co-ops	Tax-exempt entities, commercial building owners and designers of buildings owned by government entities	States, U.S. territories, District of Columbia	States, U.S. territories, District of Columbia	Local and state government, Tribal government	501(c)3 nonprofits	States, municipalities, and Tribal governments; non-profit organizations
Target Recipients	Energy community, low-income community	n/a	SEP priority states	SEP priority states	n/a	Justice40 communities	Low-income and disadvantaged communities

	Public / MUSH Buildings				School Facilities		
	Environmental and Climate Justice Block Grants	Climate Pollution Reduction Grants	Building Resilience in Communities	Flood Mitigation Assistance	Elementary and Secondary School Emergency Relief	Renew America's Schools Grant	School Air Pollution Grant
Administering Federal Agency	EPA	EPA	FEMA	FEMA	DoED	DOE	EPA
Implementing Agency	Community-based organization (CBO)	Varies by state	State, tribe, or territory Hazard Mitigation Office	State, tribe, or Hazard Mitigation Office	State Education Agencies (SEA)	Local Education Agency (LEA)	n/a
Program Type	Competitive Grants	Competitive Grants	Competitive Grants	Competitive Grants	Formula Grants	Competitive Grants	Competitive Grants
Total Funding	\$3 Billion	\$5 Billion	\$1 Billion	\$3.5 Billion	\$122 Billion	\$500 Million	\$50 Million
Funding Source	Inflation Reduction Act	Inflation Reduction Act	BIL	BIL	ARP	BIL	Inflation Reduction Act
Program Timeline	FY22-FY26	FY22-FY31	FY22-FY26	FY22-FY26	FY22-FY24	FY22-FY26	FY22-FY31
Matching Requirements	No Matching Requirement	No Matching Requirement	Sub-applicants required to cost share 25%	10-25% cost share	No Matching Requirement	At least 5% of total project costs	TBD
Labor Standards	Prevailing wage for construction projects	Prevailing wage for construction projects	Prevailing wage	Prevailing wage	Prevailing wage (for District of Columbia)	Prevailing wage	Prevailing wage for construction projects
Domestic Content	Build America Buy America requirement	Build America Buy America requirement	Build America Buy America requirement	Build America Buy America requirement	Domestic content preference	Build America Buy America requirement	Build America Buy America requirement
Eligible Entities	CBO or partnership of CBO plus stakeholders including schools, hospitals, Tribes, local government, or institution of higher education	State, Tribe, municipality, air pollution control agency	States, territories, Tribes  Sub-applicants: Homeowners, business operators, and nonprofit organizations can be included as sub-applicants	States, territories, Tribes  Sub-applicants may include non-profits, business, and home owners	SEA, LEA	Consortium of a LEA plus one or more of the following: Governmental entities, for-profit entities, and NGOs	Schools; air pollution control agencies, other public or nonprofit private agencies, institutions, and organizations, and to individuals
Target Recipients	Low-income and disadvantaged communities	n/a	Public buildings that provide essential services	Buildings at risk of flooding located in a participating National Flood Insurance Program (NFIP) Community (In good standing)	LEAs	Low-income and rural school districts	Prioritizes disadvantaged schools w/ demonstrated funding needs

## WHY MUSH BUILDINGS MATTER

- **Good Jobs:** There is a high density of union members working in MUSH buildings—including school and hospital staff and public service employees. Additionally, retrofitting MUSH buildings with high-road labor standards provides job opportunities in manufacturing, construction, and professional trades. Jobs in the energy efficiency sector number over 2.1 million, representing one of the largest technology groups in the energy sector.<sup>1</sup>
- **Climate:** The building sector—including residential and commercial—is one of the largest emitting sectors in the United States, representing 30% of total greenhouse gas emissions.<sup>2</sup> Within the commercial U.S. building sector, there are close to one million MUSH buildings, which tend to be more energy- and water-intensive buildings because they are older, larger, and/or have high electricity demand.<sup>3</sup> One study found that upgrading all existing MUSH buildings could reduce annual carbon dioxide (CO<sub>2</sub>) emissions by over 52 million metric tons.<sup>4</sup>
- **Resilience:** MUSH buildings are often public-serving institutions that may serve multiple purposes, including as community centers and resilience hubs. Public schools, for example, often serve as polling places and emergency shelters. Public or non-profit hospitals, similarly, serve the public good and also must remain operable during extreme weather.
- **Health:** Given that people in the United States spend 90% of their time indoors, there are also health considerations with older MUSH buildings.<sup>5</sup> Retrofitting MUSH buildings represents an opportunity to improve and protect human health through improving indoor air quality, remediating legacy toxics, and utilizing healthy building materials that limit hazardous chemical exposures.
- **Equity:** MUSH buildings in the most disrepair are also those located in disadvantaged communities with the least resources available to address infrastructure needs. For example, school districts with higher enrollments of students from low-income families are more likely to report their buildings in “fair” or “poor” condition.<sup>6</sup> Similarly, hospitals most in need of infrastructure upgrades are least able to access the capital needed for improvements.<sup>7</sup>



## 2. THE BLUEGREEN ALLIANCE'S BETTER BUILDINGS APPROACH

The BlueGreen Alliance (BGA) unites the nation's labor unions and environmental organizations to solve today's environmental challenges in ways that create and maintain quality jobs and build a stronger, fairer economy. Our partnership is firm in its belief that we don't have to choose between good jobs and a clean environment—we can and must have both. BGA's Better Buildings Approach is a framework built from these values, to optimize the climate, health, equity, and job creation potential that the buildings sector represents. Outlined here are three guiding principles to ensure better buildings reach that potential:

- 1. A Better Building is Energy Efficient, Healthy, and Climate Resilient**
- 2. A Better Building is Designed with Equity and High-Road Labor Standards**
- 3. A Better Building Utilizes Construction Materials that are Healthy, Made in the United States, and Low-Carbon**



## I. A BETTER BUILDING IS ENERGY EFFICIENT, HEALTHY, AND CLIMATE RESILIENT

- **Energy-Efficient:** The buildings sector—residential and commercial—represents one of the highest emitting sectors in the United States, accounting for 30% of greenhouse gas emissions.<sup>8</sup> Energy efficiency is essential for reducing electricity demand on the grid and meeting climate goals. Investing in a building’s improved energy efficiency lowers energy bills, increases a building’s durability, and reduces emissions.
- **Healthy:** A healthy building protects human health and has air and water free from toxic chemicals and pollutants. This includes replacement of lead service lines and the remediation of legacy toxics such as lead, asbestos, and polychlorinated biphenyls (PCBs) that are found in older buildings. Buildings constructed between 1950 and 1979 often contain these legacy toxics. Asbestos, lead, and PCBs are human carcinogens. Lead is also a potent neurotoxin and both lead and PCBs can damage the ability to have a healthy child.<sup>9</sup>
- **Climate Resilient:** Buildings are considered climate-resilient if they can withstand extreme weather or man-made events, including prolonged loss of electricity, heating, and/or cooling. The purpose of a climate resilient building is to protect the health and safety of building occupants and to assure the ability of critical facilities to provide services during extreme weather events or other emergencies. This can take the form of “passive survivability” where buildings can maintain healthy temperatures during a power outage that lasts several days, a heat wave, or a winter storm. Climate resilient retrofits can often overlap with energy efficiency upgrades like improved insulation or window and door sealing.

## II. A BETTER BUILDING IS DESIGNED WITH EQUITY AND HIGH-ROAD LABOR STANDARDS

- **Equity:** Within the buildings sector, there is significant potential to address racial and economic inequality, to advance environmental justice, and to tackle climate change while creating good, union jobs. This can be done by a) prioritizing investments in communities that are disproportionately burdened with older, inefficient, and unhealthy buildings and b) creating targeted job and career opportunities across the energy efficiency sector for disadvantaged workers.<sup>10</sup> The Justice40 (J40) Initiative calls for a minimum of 40% of all benefits of climate and clean energy federal investments—including workforce development—to go to communities that are marginalized, underserved, and overburdened by pollution.<sup>11</sup> In addition to implementing J40 for training and workforce development programs, additional high-road labor standards can be used specifically to support disadvantaged communities. This includes targeted and local hire provisions, often included in Community Workforce Agreements (CWA) or Community Benefits Agreements (CBA), as well as pre-apprenticeships with comprehensive wrap-around services.
- **Labor Standards:** High-road labor standards are key to maximizing energy efficiency investments to support and create good, union jobs. Studies have shown that poor installation of energy efficiency measures often results in energy savings losses of up to 50%.<sup>12</sup> Investing in a qualified workforce that will install these technologies properly ensures that stakeholders realize the full potential of their investments and building occupants receive the full expected economic and health benefits. Applicable high-road labor standards include Davis-Bacon prevailing wage, registered apprenticeship programs and/or other labor management partnerships, Project Labor Agreements (PLAs), CWAs, CBAs, and prevention of worker misclassification.<sup>13</sup>





### III. A BETTER BUILDING UTILIZES CONSTRUCTION MATERIALS THAT ARE HEALTHY, MADE IN THE UNITED STATES, AND LOW-CARBON

- **Healthy Building Materials:** Many chemicals used in building products that make up our indoor spaces are known or suspected to cause long-term harm to human health. Certifications and material ingredient lists are some of the best ways to ensure building product selections are healthier by identifying products that reduce or eliminate the most hazardous content and that ensure low volatile organic compound emissions.<sup>14</sup> This is also an equity consideration given that communities of color face disproportionate exposure to toxic chemicals.<sup>15</sup>
- **Made in the United States:** The Build America Buy America Act (BABA)—which was included in the BIL—was enacted to improve domestic supply chains and establish robust, comprehensive domestic content preferences across all federal infrastructure spending.<sup>16</sup> BABA provisions

therefore also apply to the federal funding from the Inflation Reduction Act including for retrofits or new construction of buildings open to the public or that serve a public function. BABA requires that 100% of iron, steel, and most construction materials must be produced in the United States and 55% of manufactured products for federal infrastructure projects.

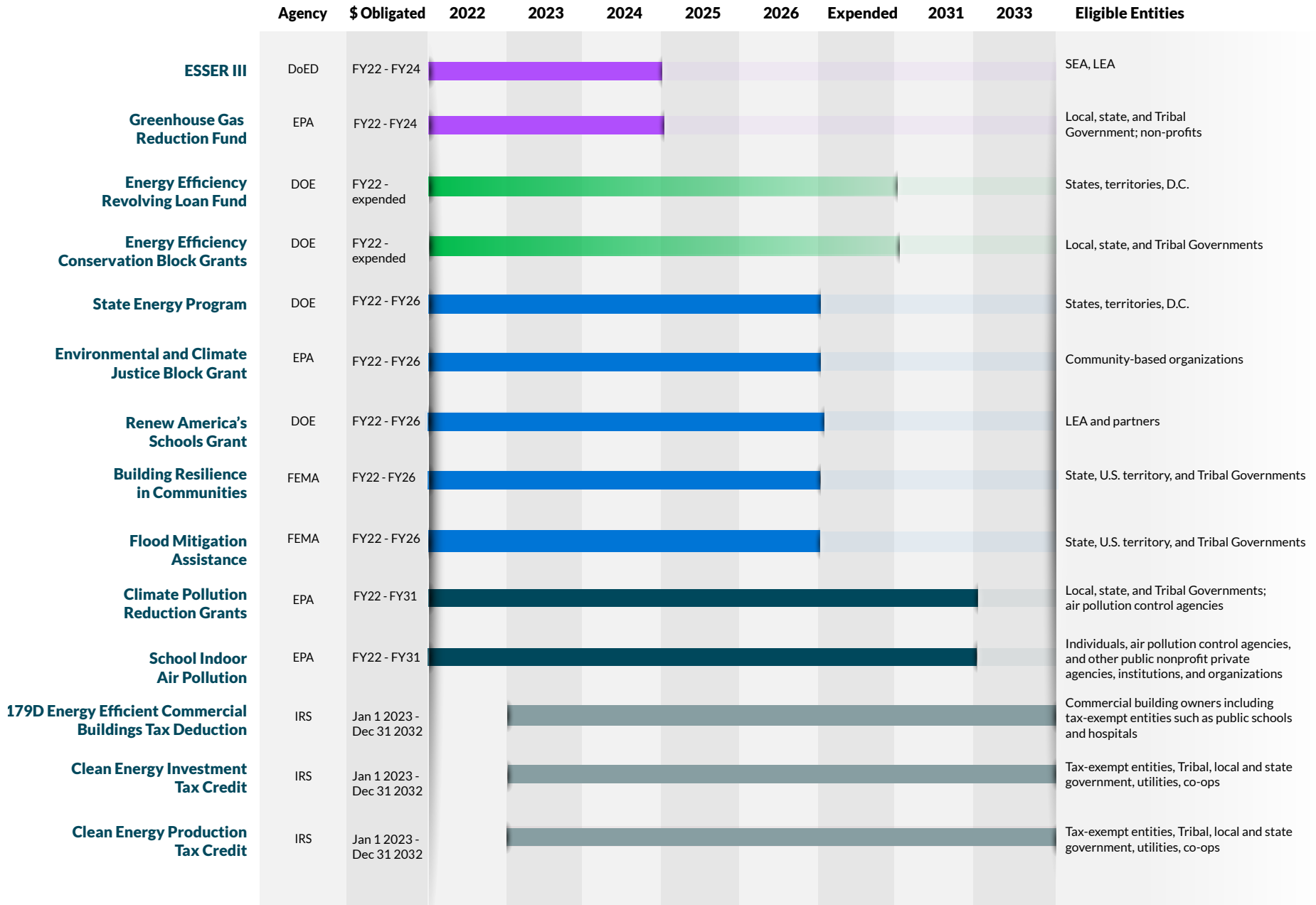
- **Low-Carbon Building Materials:** While energy efficiency can reduce operational emissions of a building, it is also important to reduce embodied emissions. Embodied emissions include those that result from the production and manufacturing of raw materials, such as steel and cement, and the transport of those goods to the building site. A lifecycle analysis of a product's total embodied emissions can be useful information to ensure procurement of low-emission, climate-friendly building materials. Whereas operational emissions can continuously be reduced, there is only one opportunity to lower the embodied emissions of a building. Utilization of low-carbon and carbon-storing materials can help to reduce a building's embodied emissions.

# 3. FEDERAL FUNDING OPPORTUNITIES FOR RETROFITTING MUSH BUILDINGS



This section details the funding opportunities across federal agencies that are available for retrofitting MUSH buildings made possible by the BIL and Inflation Reduction Act. Below are relevant programs for MUSH buildings organized by federal agency. The U.S. Department of the Treasury oversees relevant tax incentives through the Internal Revenue Service (IRS); the U.S. Department of Energy (DOE) oversees energy efficiency grant and loan programs; the U.S. Environmental Protection Agency (EPA) oversees climate and environmental programs; and the U.S. Federal Emergency Management Administration (FEMA) administers climate resilience funding.

Figure 1: Program Tenure Timelines





## U.S. DEPARTMENT OF THE TREASURY PROGRAMS THAT CAN BE USED FOR MUSH BUILDINGS

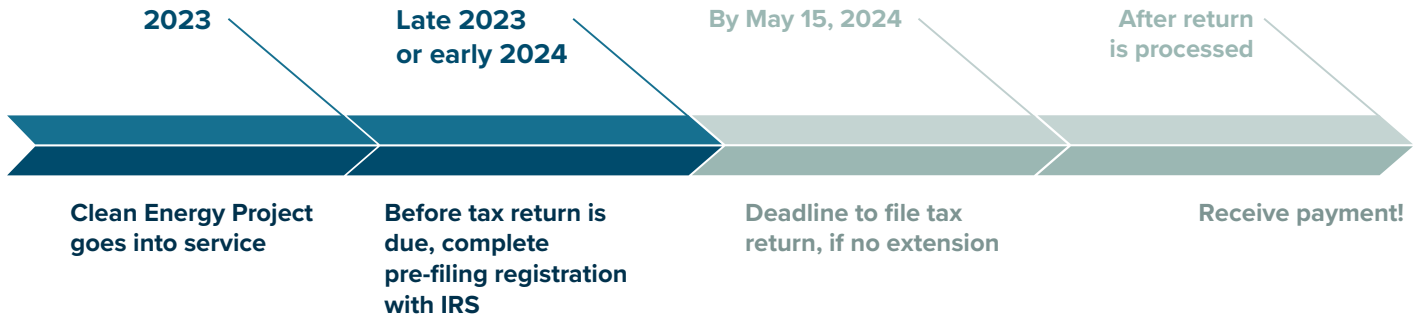
The Inflation Reduction Act significantly expanded existing tax incentives that can be used for MUSH buildings, namely clean energy tax credits and the commercial buildings energy-efficient tax deduction (179D). For both of these incentives, the Inflation Reduction Act expanded the eligibility criteria, the total value of each incentive, and the timeline of the program. For eligibility, tax-exempt institutions such as public schools, non-profit hospitals, and municipal governments can for the first time benefit from both the clean energy tax credits and 179D tax deduction. The Inflation Reduction Act also extended these programs for 10 years, providing greater certainty and reliability and incentivizing its uptake by relevant stakeholders. Moreover, eligible applicants can claim five times more money by utilizing high-road labor standards including paying prevailing wages and employing registered apprentices. The expansion of these tax credits represents an unprecedented opportunity for MUSH buildings to upgrade with energy-efficient and renewable energy technologies at significantly reduced costs.

**Clean Energy Tax Credits and Direct Pay: Investment Tax Credits (ITC) and Production Tax Credits (PTC):** The Inflation Reduction Act extended and strengthened tax credits for investment and production of a range of clean energy technologies, including on-site solar projects, geothermal heat pumps, and energy storage technology. Critically, tax-exempt entities—such as public schools and non-profit hospitals as well as Tribal, local, and state governments—can now claim the tax credits in the form of “direct pay” if their proposed projects meet domestic content standards.<sup>17</sup> In simple terms, direct pay will allow eligible entities to recoup a significant portion of a clean energy project’s cost as a tax-free cash payment from the IRS for the taxable year the project is placed in service.

The Inflation Reduction Act established a significant new opportunity for public and nonprofit entities, including state, local, and Tribal governments, schools, public and nonprofit hospitals, and not-for-profit institutions, by providing an option for direct pay (also referred to as “elective pay”). Direct pay allows these entities to benefit from the extension and establishment of tax credits for a range of clean energy technologies and infrastructure. This includes production tax credits (PTC) and investment tax credits (ITC). The PTC is a tax credit claimed on each unit of output from a range of clean energy activities. The ITC is a tax credit that is a percentage of the cost of a clean energy investment. Entities that plan to apply for direct pay must pre-register and be assigned a unique registration number for each project by the IRS before they can elect a direct cash payment.<sup>18, 19</sup>

Historically, because these tax credits were used to reduce entities’ tax liability, tax-exempt entities like schools and local governments have not been able to take advantage of them. Now, thanks to the Inflation Reduction Act’s establishment of direct pay, these entities can receive the full value of the tax credit as cash payment. Instead of a typical tax credit, direct pay operates more like a reimbursement that an entity receives for the taxable year in which the project is placed in service. If a school completes a clean energy project in 2023, it will receive a direct payment in lieu of the tax credit after pre-registering the project, receiving a registration number for the project and then electing on a 2023 tax return filed in 2024 to receive a cash payment. Essentially, the IRS will treat the amount of the credit as a payment of an overpayment of tax for which the entity is entitled to a refund. For example, a school district or local government that makes a clean energy investment that qualifies for the investment tax credit can file a return with the IRS and be refunded the amount of tax credit, even if it would not owe other federal income tax.<sup>20, 21</sup>

**Figure 2: Direct Pay Timeline**



A range of clean energy investments and technologies are eligible, including geothermal and solar. Smaller clean energy projects that generate a maximum capacity of less than one megawatt (MW) qualify for a 30% base credit. Larger projects with more than 1 MW of generation capacity will receive a 6% base credit, plus an additional 24% if employing registered apprentices and paying prevailing wage. For context, the average U.S. hospital uses 0.74MW and the average K-12 public school uses 0.01 MW per year.<sup>22,23</sup>

The value of the tax credit can increase significantly when projects target disadvantaged communities and utilize products made in the United States. Specifically, projects can receive a 10% bonus ITC if they are located in a low-income community or on Tribal lands and a 10% bonus ITC or commensurate bonus PTC if they are located in an energy transition community.

All of these bonus credits can be stacked together to increase the total amount of the tax credit for a given project. This total amount (including the bonus credits) is eligible for direct pay.<sup>24,25</sup> See Table 2 for more details and additional hypothetical example on Page 15.

**Table 2: Stackable Clean Energy Tax Credits**

Stackable	Qualifying Project	Description
30%	For smaller projects (under 1 MW) -and- For larger projects with labor standards	Qualifying projects with a maximum net output of 1 MW or less are eligible for the 30% base credit. Larger projects over 1 MW must pay prevailing wage and utilize a percentage of registered apprentices to receive the full 30% credit. Larger projects that do not meet these standards can receive a 6% base credit. <b>Percentage apprentice hours required:</b> <sup>26</sup> Labor hours spent on facility construction, alteration, or repair work: at least 10% (rising to 12.5% for facilities where construction begins in 2023 and 15% in 2024 and later years).
+10%	Energy community <sup>27</sup>	Communities that have seen significant job loss either in the fossil fuel economy due to the closure of a coal mine or coal-fired power plant, or are host to a brownfield site. <sup>28</sup>
+10%	Low-income community or Tribal land <sup>29, 30</sup>  <i>(ITC: solar or wind projects only)</i>	A community is low-income if the poverty rate for such tract is at least 20%, or, in the case of a tract not located within a metropolitan area, the median family income for such tract does not exceed 80% of statewide median family income, or in the case of a tract located within a metropolitan area, the median family income does not exceed 80% of the greater of statewide median family income or are located on federally recognized Tribal land. <sup>31</sup>  <b>Note:</b> Only available for solar and wind projects, below a maximum output of 5 MW.
+10%	Domestic content	When a percentage of the “total component cost” of manufactured products are made in the United States, qualifying projects receive this bonus credit.  <b>Note:</b> If an entity does not meet these domestic content standards, then the total amount of the tax credits eligible for direct pay decreases.  <b>Percentage domestic content requirements:</b> <i>OffShore wind:</i> 20% in 2023, 27.5% in 2024, 35% in 2025, 45% in 2026, 55% by 2028. <i>All other clean energy:</i> 40% in 2023, 45% in 2024, 50% by 2025, 55% by 2027. <sup>32</sup>

## Stacking Example: 2023 Hypothetical School Solar Project in Colorado

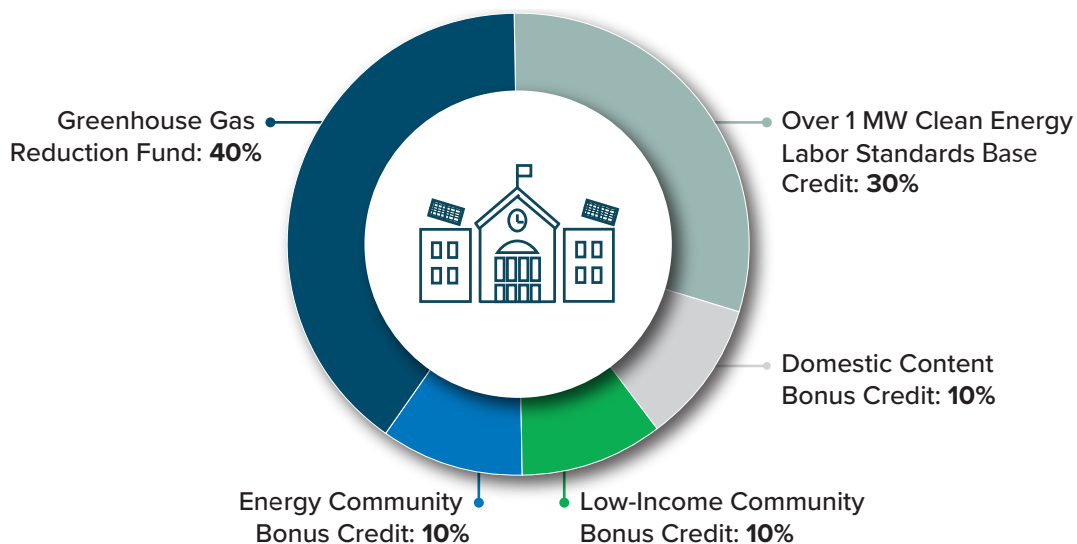
A large K-12 public school in the city of San Luis, Colorado, takes advantage of the ITC to install solar panels. As a renewable energy project that has a maximum net output of over 1 MW it would qualify for a 30% bonus credit if the project pays prevailing wage and utilizes registered apprentices. Because San Luis is considered an energy community (10% bonus credit) and a low-income community (10% bonus credit) it will qualify for an additional 20% in bonus credits, bringing the total credit up to 50%.<sup>33</sup> The San Luis retrofit project contractor ensures that 40% of the cost of solar panels is made in the United States (refer to Table 2 for percentages of domestic content) and therefore qualifies the school for direct pay and another 10% domestic content bonus credit, bringing the total credit up to 60% of project costs.

The school is a tax-exempt institution and therefore does not have any tax liability. The school would normally not be able to benefit from a tax credit (which essentially lowers any taxpayer's tax liability). However, with the new direct pay option and eligibility for tax-exempt institutions, the school can now get 60% of the cost of the solar panels

paid for essentially in the form of a grant. To pay for the cost of the other 40% of the solar panels, the school can stack the tax credits with financing available through the Greenhouse Gas Reduction Fund (GGRF) (detailed on page 22). The GGRF is expected to funnel money to institutions such as state green banks or community development financial institutions that can help provide financing for clean energy projects. With the stacking of all eligible bonus credits, the solar panels will be 100% covered by tax credits and green bank funding from the Inflation Reduction Act.

To optimize energy savings, the school is advised by an energy auditor to pair the renewable energy technology with additional energy efficiency measures. There are additional funds available if the school wants to optimize energy efficiency with an upgraded HVAC system. This includes opportunities to utilize any unobligated Elementary and Secondary School Emergency Relief (ESSER) funds or apply for DOE Renew America's Schools grants or EPA grants for School Indoor Air Pollution to pay a union contractor to install a new system.

**Figure 3: Stacking Example: Hypothetical public school stacks all four clean energy bonus tax credits and supplements with green bank funding**



**Table 3: Clean Energy Tax Credits Quick Facts**

<b>Administering Federal Agency:</b>	IRS, U.S. Department of Treasury
<b>Implementing State Agency:</b>	n/a
<b>Program Type:</b>	Tax Credit
<b>Total Funding/Source:</b>	Uncapped / Inflation Reduction Act
<b>Funding Timeline:</b>	Jan 1, 2023 - Dec 31, 2032
<b>Matching Requirements</b>	n/a
<b>Labor standards:</b>	Prevailing wage and registered apprenticeships are required to qualify for bonus credits for larger projects that are 1MW or over.
<b>Domestic Content:</b>	Required for tax-exempt institutions to qualify for direct pay and any eligible entity to qualify for bonus credit.
<b>Eligible Entities for tax credit:</b>	Tax-exempt entities, Tribal government, local and state government, utilities, developers, co-ops.
<b>Direct Pay eligible entities:</b>	Tax-exempt entities such as public schools, public or non-profit hospitals, government entities, etc.
<b>Target population:</b>	Energy communities, Low-income communities.
<b>Stacking Funds:</b>	Projects utilizing these tax credits may also consider utilizing DOE energy efficiency grant programs (outlined below).  Projects benefiting disadvantaged communities may also consider utilizing EPA’s climate and environmental justice grants (see Page 16).



## 179D Energy Efficient Commercial Building Tax Deduction

Before the Inflation Reduction Act became law, commercial building owners could only deduct up to \$1.88 per square foot for energy efficiency measures and the program was only authorized a few years at a time. The Inflation Reduction Act increased the tax deduction up to \$5 per square foot by using high-road labor standards and installing qualifying systems that reduce energy usage by at least 25%. The program is now authorized for 10 years. Energy

efficiency measures can include new construction or improvements to interior lighting, heating, cooling, ventilation, hot water, and the building envelope, including dynamic glass.<sup>34</sup> While governments and other tax-exempt entities—such as public schools and non-profit hospitals—have no tax liability, they can provide an “allocation letter” to the taxpaying entity (the contractor) claiming the tax deduction and adjusting the price of the project.<sup>35</sup> However, it is worth noting that the direct pay option is not available for the 179D tax deduction.

**Table 4: 179D Quick Facts**

<b>Administering Federal Agency:</b>	IRS, U.S. Department of Treasury
<b>Program Type:</b>	Tax Deduction
<b>Total Funding/Source:</b>	Uncapped / Inflation Reduction Act
<b>Funding Timeline:</b>	Jan 1, 2023 - Dec 31, 2032
<b>Matching Requirement:</b>	n/a
<b>Labor standards:</b>	Prevailing wage, registered apprenticeship to receive full value of credit (up to \$5 per sq ft).
<b>Domestic Content:</b>	n/a
<b>Eligible Entities:</b>	Commercial building owners and designers of buildings owned by government entities; designers of commercial buildings owned by tax-exempt entities, including not-for-profit hospitals, Tribal organizations, and not-for-profit (e.g. public) schools and universities. <sup>36</sup>
<b>Stacking Funds:</b>	For retrofit projects, consider utilizing Energy Efficiency Revolving Loan Fund (EERLF) that also incentivizes prevailing wage as well as State Energy Program (SEP) or Energy Efficiency Conservation Block Grants (EECBG) grants that can be utilized for energy efficiency MUSH building retrofits.

## U.S. DEPARTMENT OF ENERGY PROGRAMS THAT CAN BE USED FOR MUSH BUILDINGS

DOE administers several energy efficiency programs that were established by—or received funding from—the BIL and can be used to retrofit MUSH buildings. The three primary programs are the SEP and EERLF—which are managed through state energy offices and EECBG—which are administered through local government agencies such as sustainability offices, but may vary with each jurisdiction.

### SEP

SEP provides funding and technical assistance to states, territories, and the District of Columbia to enhance energy security, advance state-led energy initiatives, and maximize the benefits of decreasing energy waste. The BIL allocated \$500 million to SEP for fiscal years (FY) 2022 - 2026. There are no state match requirements and each state’s formula funding allocation can be found on the DOE Office of State and Community Energy Programs website.<sup>37</sup> Utilizing federal infrastructure funds via SEP requires that projects—including new construction or retrofits—pay prevailing wage and adhere to BABA.<sup>38</sup> Importantly, SEP funds can be used to increase staff capacity in energy offices for managing planned energy projects and coordinating funding.

**Table 5: SEP Quick Facts**

<b>Administering Federal Agency:</b>	DOE
<b>Implementing State Agency:</b>	State Energy Office
<b>Program Type:</b>	Formula Grant
<b>Total Funding/Source:</b>	\$500 Million / BIL
<b>Funding Timeline:</b>	FY22 - FY26
<b>Matching requirements</b>	No match requirement
<b>Labor standards:</b>	Prevailing wage
<b>Domestic Content:</b>	BABA requirements
<b>Eligible Entities:</b>	States, U.S. territories, District of Columbia
<b>Target recipients:</b>	SEP priority states: Alabama, Alaska, Arkansas, District of Columbia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Michigan, Missouri, Montana, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Tennessee, Texas, Virginia, West Virginia, Wyoming.
<b>Stacking Funds:<sup>39</sup></b>	SEP funds can be used for increasing staff capacity to compete for and manage other federal funding opportunities. If a state’s energy plan or climate roadmap identifies buildings as a strategic solution to reducing energy demand, SEP funds can also be used towards MUSH building retrofits. Consider retrofitting MUSH buildings in disadvantaged communities by stacking funds with the EPA programs listed below that prioritize these communities or in conjunction with clean energy tax credits.

## EERLF

In addition to the general funds described above for the SEP, BIL also provided \$250 million to the SEP at the DOE to establish and administer a new EERLF program. The EERLF program provides seed money, known as capitalization grants, for states to create revolving loan funds (RLFs) for building infrastructure and energy system upgrades. Once states receive capitalization grants, they can distribute them as grants or loans for commercial—including MUSH—and residential building energy audits and retrofits.

The EERLF will be utilized to meet state-led energy efficiency initiatives. In the first year of funding, projects will be required to pay prevailing wage and procure domestic content. However, at the end of the award, the EERLF is considered established within a state and the funds henceforth are regulated by the state and will only be subject to minimum federal requirements for continued use of the RLFs.<sup>40</sup> Additionally, states may establish a new RLF or utilize an existing one.

**Table 6: EERLF Quick Facts**

<b>Administering Federal Agency:</b>	DOE
<b>Implementing State Agency:</b>	State Energy Office
<b>Program Type:</b>	Formula Grant
<b>Total Funding/Source:</b>	\$250 Million / BIL
<b>Funding Timeline:</b>	FY22 until expended
<b>Matching requirements</b>	No match requirement
<b>Labor standards:</b>	Prevailing wage required with initial federal funding.
<b>Domestic Content:</b>	BABA requirements with initial federal funding.
<b>Eligible Entities:</b>	States, U.S. territories, and District of Columbia.
<b>Target recipients:</b>	SEP priority states: Alabama, Alaska, Arkansas, District of Columbia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Michigan, Missouri, Montana, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Tennessee, Texas, Virginia, West Virginia, Wyoming.
<b>Stacking Funds:</b>	Consider stacking EERLF with SEP funds.

## Energy Efficiency Conservation Block Grants

This program was first funded in 2009 under the American Recovery and Reinvestment Act and was largely used for building retrofits.<sup>41</sup> These formula grants are used to reduce energy use and emissions as well as improve energy efficiency for Tribes and local governments that meet the following criteria:

- Cities with a population of more than 35,000;
- Counties with a population of more than 200,000;
- 10 largest cities in each state, regardless of population; and
- Tribal governments.

Populations that do not meet the population thresholds above will have to apply for competitive EECBG grants through DOE.

## EECBG Case Study

In 2010, the city of Espanola, New Mexico used EECBG funds to retrofit their city hall to utilize geothermal energy.<sup>42</sup> EECBG funds were able to cover 75% of the project cost, with the remainder covered by city funds.

- EECBG funds: \$451,680
- City funds: \$145,990
- Retrofits: geothermal cooling and heating, smart thermostats, improved insulation, and a new air handling system
- Saved 50% on heating and cooling
- \$42,000 saved annually
- Estimated \$1.26 million saved over 30 years
- Cut GHG emissions by 308 metric tons/year
- Increased employee productivity
- Created 22 jobs

**Table 7: EECBG Quick Facts**

<b>Administering Federal Agency:</b>	DOE
<b>Implementing Agency:</b>	Local government energy or sustainability agency; Tribal energy office, state energy office
<b>Program Type:</b>	Formula Grant
<b>Total Funding:</b>	\$550 Million / BIL
<b>Program Timeline:</b>	FY22 until expended
<b>Matching requirements</b>	No match requirement
<b>Labor standards:</b>	Prevailing wage
<b>Domestic Content:</b>	BABA requirements
<b>Eligible Entities:</b>	Local and state government, Tribal government
<b>Target recipients:</b>	n/a
<b>Stacking Funds:</b>	Consider stacking EECBG funds with SEP and Environment and Climate Justice Block Grants (ECJBG); or with school-specific infrastructure funding to retrofit public schools.

## Renew America’s Nonprofits

This new program funded by BIL, provides money to nonprofits for energy efficiency upgrades to a portfolio of buildings that are owned and operated by 501(c)3 organizations. Each portfolio should demonstrate significant energy and cost savings, emissions reductions potential, compelling cost

effectiveness, and alignment with the J40 Initiative goals to benefit disadvantaged communities. This is an opportunity for non-profit hospitals and non-profit schools and universities to accelerate energy efficiency retrofits. The maximum size of an individual grant awarded is \$200,000.

**Table 8: Renew America’s Nonprofits Quick Facts**

<b>Administering Federal Agency:</b>	DOE
<b>Implementing Agency:</b>	n/a
<b>Program Type:</b>	Competitive Grant
<b>Total Funding:</b>	\$50 Million / BIL
<b>Program Timeline:</b>	FY22 - FY26
<b>Matching requirements</b>	Recipient cost share would be applicable
<b>Labor standards:</b>	Prevailing wage
<b>Domestic Content:</b>	BABA requirements
<b>Eligible Entities:</b>	501(c)3 non-profit organizations
<b>Target recipients:</b>	Disadvantaged communities
<b>Stacking Funds:</b>	Consider stacking with clean energy tax credits.



## U.S. ENVIRONMENTAL PROTECTION AGENCY PROGRAMS THAT CAN BE USED FOR MUSH BUILDINGS

The Inflation Reduction Act funded several new EPA programs that, while broader in scope, could fund MUSH building retrofits as part of a broader strategy to reduce emissions and environmental burdens particularly for disadvantaged communities. These programs include the GGRF, Climate Pollution Reduction Grants (CPRG), and ECJBG.

### GGRF

The GGRF is a new program that will use national entities as primary recipients to then disburse funds to green banks, Community Development Finance Institutions (CDFIs), credit unions, and housing finance agencies to deploy funding for low and zero emissions technologies, with an emphasis on projects in low-income and disadvantaged communities. Out of the total \$27 billion in funding, the \$14 billion

National Clean Investment Fund competition will fund up to three national non-profits that will partner with private capital providers to deliver financing to fund clean technology projects. The EPA has identified decarbonization retrofits of existing buildings as a priority project category for the National Clean Investment Fund. The \$6 billion Clean Communities Investment Accelerator competition will fund up to seven hub nonprofits with the plans and capabilities to support financing capacity for localized financial institutions, such as CDFIs, in disadvantaged communities. Last and perhaps least relevant to the MUSH sector, is the \$7 billion Solar for All competition that will provide up to 60 grants to states, Tribal governments, municipalities, and non-profits, focused on residential and community solar in low-income and disadvantaged communities. There is a huge opportunity to retrofit MUSH buildings at a large scale with the first two funds, including public schools or hospitals, in disadvantaged communities where projects can reduce emissions at critical facilities and community resilience hubs.

**Table 9: GGRF Quick Facts**

<b>Administering Federal Agency:</b>	EPA
<b>Program Type:</b>	Competitive Grant
<b>Total Funding:</b>	\$27 Billion / Inflation Reduction Act
<b>Program Timeline:</b>	FY22 - FY24
<b>Matching requirements</b>	No match requirement
<b>Labor standards:</b>	Prevailing wage for construction projects
<b>Domestic Content:</b>	BABA requirements
<b>Eligible Entities:</b>	States, municipalities, and Tribal governments; non-profit organizations.
<b>Target recipients:</b>	Low-income communities, Disadvantaged communities.
<b>Stacking Funds:</b>	For large-scale retrofits, stack GGRF funds administered by a state-level green bank with SEP funds and clean energy tax credits. For smaller-scale retrofits, where funds may be administered by Community Development Finance Institutes stack with EECBG funds and ECJBG.

## Climate Pollution Reduction Grants

The CPRG program provides formula grants to states, municipalities, and Tribes to first develop plans to reduce GHG pollution and then competitive grants to implement them. All 50 states, the District of Columbia, and Puerto Rico are eligible to receive \$3 million in planning funds. In addition, each of the 67 most populous metropolitan areas in the country are eligible to receive \$1 million each to develop plans to tackle climate pollution locally. EPA is also making millions in non-competitive planning grant

funds available to territory and Tribal governments. The majority of the funds, \$4.75 billion, will then be awarded in competitive grants to implement activities outlined in the planning phase. Competitive projects will be those that benefit disadvantaged communities and include projected GHG emission reductions. Projects designed to retrofit a group of MUSH buildings with large carbon footprints (e.g. a hospital campus or a public school system within a high-need district) could be competitive for this funding.

**Table 10: CPRG Quick Facts**

<b>Administering Federal Agency:</b>	EPA
<b>Program Type:</b>	Competitive Grant
<b>Total Funding:</b>	\$5 Billion / Inflation Reduction Act
<b>Program Timeline:</b>	FY22 - FY31
<b>Matching requirements</b>	No match requirements
<b>Labor standards:</b>	Prevailing wage for construction projects
<b>Domestic Content:</b>	BABA requirements
<b>Eligible Entities:</b>	States, Tribal governments, municipalities, air pollution control agencies.
<b>Target population:</b>	Low-income communities, Disadvantaged communities.
<b>Stacking Funds:</b>	Since only one grant per state is guaranteed, it would be helpful to coordinate projects with the state energy office and the intended use of EERLF and SEP funds.

## Environmental and Climate Justice Block Grants

The ECJBG program provides funding for financial and technical assistance to implement environmental and climate justice activities that benefit disadvantaged communities. Eligible activities may include:

- Community-led air and other pollution monitoring, prevention, remediation and investments in low-

and zero-emission and resilient technologies and related infrastructure;

- Workforce development that helps reduce GHG emissions and other air pollutants (GHG is defined as “air pollutants carbon dioxide, hydrofluorocarbons, methane, nitrous oxide, perfluorocarbons, and sulfur hexafluoride”);

- Mitigating climate and health risks from urban heat islands, extreme heat, wood heater emissions, and wildfire events;
- Climate resiliency and adaptation;
- Reducing indoor toxics and indoor air pollution; and
- Facilitating engagement with disadvantaged communities in state and federal advisory groups, workshops, rulemakings, and other public processes.

Furthermore, collaboration is expected by the EPA. Applications with diverse stakeholders are considered more competitive than those with fewer partnerships or those with only one type of stakeholder.

Retrofitting MUSH buildings to be energy efficient, healthy, and climate resilient—following BGA’s Better Buildings Approach—can address several of these priorities including reduced emissions, increased climate resilience, workforce development, and less indoor toxics and air pollution. Eligible projects could include public school retrofits that capitalize on clean energy tax credits for solar while remediating lead, asbestos, PCBs, and installing new HVAC and dynamic glass. Non-profit hospitals serving disadvantaged communities could similarly stack energy tax credits with block grants to install renewable energy and conduct deep energy retrofits that would reduce emissions and improve indoor air quality.

**Table 11: ECJBG Quick Facts**

<b>Administering Federal Agency:</b>	EPA
<b>Program Type:</b>	Competitive Grant
<b>Total Funding:</b>	\$3 Billion / Inflation Reduction Act
<b>Program Timeline:</b>	FY22 - FY26
<b>Matching requirements</b>	No match requirement
<b>Labor standards:</b>	Prevailing wage for construction projects
<b>Domestic Content:</b>	BABA requirements
<b>Eligible Entities:</b>	A partnership between a community-based nonprofit organization (CBO) and Tribal or local governments; institutions of higher education; another CBO; or a partnership of CBOs.
<b>Target population:</b>	Disadvantaged communities as identified by EPA’s Environmental Justice and Mapping Screening Tool (EJScreen), Climate and Economic Justice Screening Tool (CEJST), or another EJ mapping tool, and/or first-person testimonials on disproportionate impact.
<b>Stacking Funds:</b>	This grant can be used in conjunction with other federal grants as long as these funds are not used as a match for another grant and the same cost is not charged to two different grants. Given that CBOs operate at the local level, this grant could go towards school retrofits or be stacked with EECBG funds.

## U.S. FEDERAL EMERGENCY MANAGEMENT AGENCY RESILIENCE PROGRAMS THAT CAN BE USED FOR MUSH BUILDINGS

MUSH buildings in need of climate resilient retrofits can benefit from existing FEMA programs including the Building Resilience in Communities (BRIC) and Flood Mitigation Assistance (FMA) programs, both of which received additional funding from the BIL. This is most relevant for critical facilities such as a hospital or a school that also serves as an emergency shelter.

### Building Resilience in Communities

The BRIC program aims to reduce the overall risk to communities from natural and man-made hazards.

Buildings that can receive funding from the BRIC program include those that are intended for community use and are essential for the delivery of critical services, such as emergency services, healthcare, and education. These funds can be used for a wide range of activities, including retrofitting buildings to make them more resilient, updating building codes to promote hazard mitigation, and capacity building for a mitigation workforce, including for building codes. For example, BRIC funding was used to weatherize the Nicklaus Children’s Hospital in Miami, Florida with impact resistant windows and a “shell” of glass-fiber reinforced concrete to encase the building.<sup>43</sup> With an increase in BRIC funding through the BIL, there is renewed capacity to strengthen critical buildings by adapting them to the threats of climate change.

**Table 12: BRIC Quick Facts**

<b>Administering Federal Agency:</b>	FEMA
<b>Implementing Agency:</b>	State, Tribe, or territory hazard mitigation office
<b>Program Type:</b>	Competitive Grant
<b>Total Funding:</b>	\$1 Billion / BIL
<b>Program Timeline:</b>	FY22 - FY26
<b>Matching requirements</b>	No match requirement for eligible entities; Sub-applicants are required to cost share 25% (federal cost share 75%).
<b>Labor standards:</b>	Prevailing wage for construction projects
<b>Domestic Content:</b>	BABA requirements
<b>Eligible Entities:</b>	States, territories, Tribes. Sub-applicants: homeowners, business operators, and nonprofit organizations cannot apply directly, but can be included as a sub-applicant with an eligible entity.
<b>Target population:</b>	MUSH buildings that provide essential services (i.e. schools, hospitals) with an added focus on infrastructure projects that benefit disadvantaged communities, include nature-based solutions, ensure climate resilience and adaptation, and adopt hazard resistant building codes. <sup>44</sup>
<b>Stacking Funds:</b>	Consider stacking climate resilience funding with DOE energy efficiency funds to retrofit critical facilities such as schools and hospitals.

## Flood Mitigation Assistance (FMA)

The Flood Mitigation Assistance (FMA) program provides funding to states, territories, local communities, and certain non-profit organizations to implement measures that reduce or eliminate the long-term risk of flood damage to buildings, manufactured homes, and other structures insured under the National Flood Insurance Program (NFIP). Non-profits, businesses, and homeowners can be a sub-applicant. The program’s goal is to reduce the overall risk to communities from flood hazards, and to decrease the number of flood insurance claims and the associated federal disaster assistance costs.

Eligible buildings for the FMA program include residential and non-residential structures that have been substantially damaged or repetitively flooded, and that are located in a Special Flood Hazard Area (SFHA).<sup>45</sup> The program provides funding for retrofitting and floodproofing eligible buildings, making them more resistant to flood damage, which can help lower the risk of damage and reduce the cost of recovery. The program is also focused on activities like the acquisition and relocation of flood-prone properties, elevation of structures, and the creation of floodplain management plans.

**Table 13: FMA Quick Facts**

<b>Administering Federal Agency:</b>	FEMA
<b>Implementing Agency:</b>	State, Tribe, or territory hazard mitigation office
<b>Program Type:</b>	Competitive Grant
<b>Total Funding:</b>	\$3.5 Billion / BIL
<b>Program Timeline:</b>	FY22 - FY26
<b>Matching requirements</b>	Federal cost share is between 75-90% depending on the Social Vulnerability Index of a census tract. <sup>46</sup> Contributions of cash, third-party in-kind services, materials, or any combination thereof, may be accepted as part of the non-federal cost share.
<b>Labor standards:</b>	Prevailing wage for construction projects
<b>Domestic Content:</b>	BABA requirements
<b>Eligible Entities:</b>	States, territories, Tribes. Sub-applicants may include non-profits, businesses, and homeowners.
<b>Target population:</b>	Buildings at risk of flooding located in a participating NFIP Community (in good standing). <sup>47</sup>
<b>Stacking Funds:</b>	Consider stacking climate resilience funding with DOE energy efficiency funds to retrofit critical facilities such as schools and hospitals in flood-prone areas.



## A Case Study for Green Hospitals

The healthcare sector contributes 10% of total GHG emissions in the U.S.<sup>48</sup> Non-profit and municipal hospitals represent an opportunity to utilize federal funding to reduce GHG emissions while benefiting disadvantaged communities who often make up the majority of patients for these public-serving institutions. In Miami, Service Employees International Union (SEIU) Local 1991 partnered with Practice Green Health and the Jackson Health System (JHS) to cut emissions, utilize solar energy, and protect worker health through the use of green cleaning products.

Jackson Memorial Hospital—a non-profit, tertiary-care, teaching hospital within the JHS system—worked in collaboration with the SEIU labor-management committee to create a Climate Committee. The Committee conducted sustainability analyses and agreed upon a mission to reduce GHG emissions and build a low-carbon healthcare system to improve and protect the health of the community. Thus far, the hospital has implemented a green cleaning and procurement policy, updated old heating systems, installed electric vehicle charging, and more.<sup>49</sup> Similarly, other non-profit and municipal hospitals—in partnership with local unions where applicable—can take advantage of the federal funding available for retrofitting MUSH buildings. This could include tapping into the direct pay option for clean energy tax credits to install renewable energy technology like solar or geothermal heat pumps; utilizing the 179D tax deduction for deep energy retrofits; and applying for energy efficiency grants through the state energy office. Hospitals located in climate hazard-prone areas may qualify for additional grant funding through FEMA's BRIC or FMA programs.



## SCHOOL BUILDINGS

Although public school buildings fall under the umbrella of MUSH buildings and therefore qualify for the funding highlighted above, there are additional recent streams of funding outlined below that are applicable specifically for school infrastructure.

### Background

In the United States, 1 in 6 Americans—including K-12 students, faculty, and staff—occupy 100,000 public schools. The American Society of Civil Engineers (ASCE)'s 2021 Report Card gives America's schools a "D+" grade, unchanged from the last report card six years ago. These school buildings are estimated to have an annual spending gap of \$85 billion in deferred maintenance and capital costs. The condition of inadequate school facilities can include exposure to mold and legacy toxics such as lead, asbestos, and PCBs; poor air quality and temperature control; inadequate lighting; and excessive noise.

Modernizing school facilities also provides opportunities to significantly reduce energy costs and GHG emissions, and improve the quality of indoor learning environments. School facilities emit 72 million metric tons of carbon dioxide (MMTCO<sub>2</sub>) annually which is the equivalent of the emissions of 14 million homes' electricity use for one year.<sup>50</sup> Meanwhile, according to the EPA, around a quarter of energy used in U.S. schools is wasted and facilities in low income areas are often the least efficient.<sup>51</sup> Green schools, on the other hand, achieve the maximum level of water and energy efficiency and are built with the health of occupants in mind—while utilizing an average of 33% less energy, 32% less water, and lowering utility costs of a typical green school by around \$100,000 annually.<sup>52</sup>



Research shows that as the percentage of students who qualify for reduced-cost lunch increases, the quality of the school building decreases.<sup>53</sup> School districts with higher enrollments of students from low-income families are more likely to report their buildings in "fair" or "poor" condition.<sup>54</sup> Furthermore, school districts with higher enrollments of students from low-income families and families of color invest thousands of dollars less per student in facilities capital improvements than districts in high-wealth communities.<sup>55</sup> Many studies show that after controlling for income, students in poor quality school buildings score between 5 to 11 percentile points lower on standardized tests than students in modernized buildings.<sup>56</sup>

Below are the Inflation Reduction Act, BIL, and American Rescue Plan (ARP) funding opportunities available specifically for schools that can support efficient, healthy, and climate resilient retrofits.

## Elementary and Secondary School Emergency Relief (ESSER)

In 2021, the American Rescue Plan included \$122 billion to states and school districts to help safely reopen and sustain the operations of schools and address the impacts of the coronavirus pandemic on the nation’s students.<sup>57</sup> Many school districts still have unspent funds that can be used for energy efficiency upgrades.<sup>58</sup> This non-recurring stimulus funding, called ARP Elementary and Secondary School Emergency Relief (ESSER), is ideal for investing in one-off capital improvement projects that protect the safety and health of students and staff. This may include a new HVAC system to improve indoor air quality or a new

roof. The Department of Education extended the spending deadline for ESSER funds. The funds must be allocated by September 30, 2024, but the project completion deadline which was originally January 2025 can be pushed to April 2026.<sup>59</sup> However, State Education Agencies (SEA) must formally submit a Liquidation Extension Request to the U.S. Department of Education on behalf of their school districts to receive the extension.<sup>60</sup>

**Table 14: ESSER Quick Facts**

<b>Administering Federal Agency:</b>	Department of Education
<b>Implementing Agency:</b>	State Education Agencies
<b>Program Type:</b>	Formula Grant
<b>Total Funding:</b>	\$122B / American Rescue Plan
<b>Program Timeline:</b>	FY22 - FY24
<b>Matching requirements:</b>	No match requirement
<b>Labor standards:</b>	Prevailing wage (for District of Columbia) <sup>61</sup>
<b>Domestic Content:</b>	Preferred <sup>62</sup>
<b>Eligible Entities:</b>	State Education Agencies (SEA) and Local Education Agencies (LEA) i.e. school districts
<b>Target population:</b>	n/a
<b>Stacking Funds:</b>	Stack available ESSER funds utilized for school infrastructure upgrades with other DOE energy efficient or EPA climate resilient retrofit funding. For schools in disadvantaged communities, consider stacking funding with Environmental and Climate Justice Block Grants by partnering with a community based organization.

## Renew America’s Schools Grant

The Bipartisan Infrastructure Law designated \$500 million to the DOE to help rural and high-poverty school districts lower utilities costs, reduce carbon emissions, and build healthier learning environments through building retrofits.<sup>63</sup> Individual awards may vary between \$500,000 and \$15 million.<sup>64</sup> This funding is prioritized for energy retrofits that improve student and staff health and target disadvantaged communities and schools that also serve as resilience hubs or community assets, such as cooling centers. It also prioritizes projects that leverage private funding through energy-related performance contracting.

Projects can include energy efficiency, renewable energy, alternative fueled vehicle upgrades, and other improvements at public schools. Deep energy retrofits include upgrades to multiple systems such as repairs, renovations, or installations to the building envelope, air conditioning system, ventilation system, heating system, domestic hot water heating system, compressed air system, distribution system, lighting system, power system, and/or controls of a building. There are resources available to help schools conduct an energy need assessment as a first step.<sup>65</sup>

**Table 15: Renew America’s Schools Grant Quick Facts**

<b>Administering Federal Agency:</b>	Department of Energy
<b>Implementing Agency:</b>	Local Education Agency
<b>Program Type:</b>	Competitive Grant
<b>Total Funding:</b>	\$500M / Bipartisan Infrastructure Law
<b>Program Timeline:</b>	FY22 - FY26
<b>Matching requirements:</b>	At least 5% of total project costs
<b>Labor standards:</b>	Prevailing wage
<b>Domestic Content:</b>	Build America Buy America requirements
<b>Eligible Entities:</b>	Consortium of a Local Education Agency (LEA) plus one or more of the following: governmental entities such as states, local governments, and Tribes; for-profit entities such as utilities and companies that provide energy services or manufacture energy systems; and non-governmental organizations such as community-based organizations, national associations, labor unions, workforce training providers, and energy focused groups.
<b>Target population:</b>	Low income and rural school districts: schools that serve a high percentage of students who are eligible for a free or reduced-price lunch or have a school district locale code of 41 (fringe), 42 (distant), or 43 (remote).
<b>Stacking Funds:</b>	Consider stacking with other clean energy tax credits or FEMA climate resilient retrofit funding. For schools in disadvantaged communities, consider stacking funding with EPA programs listed above.



## School Air Pollution Grants

The Inflation Reduction Act designated \$50 million to the EPA for grants and other activities to monitor and reduce pollution and GHG emissions at schools in low-income and disadvantaged communities. Qualified activities should deliver health benefits, improve performance and productivity of students and staff, and supplement energy efficiency and

climate resilience upgrades. This could include installing a new HVAC system, indoor air monitors, and the remediation of legacy toxics that are airborne such as asbestos, PCBs, and lead paint dust. Reducing GHG emissions could also entail additional energy-efficient retrofits.

**Table 16: School Air Pollution Grants Quick Facts**

<b>Administering Federal Agency:</b>	Environmental Protection Agency
<b>Program Type:</b>	Competitive Grant
<b>Total Funding:</b>	\$50M / Inflation Reduction Act
<b>Program Timeline:</b>	FY22 - FY31
<b>Matching requirements:</b>	No matching requirements
<b>Labor standards:</b>	Prevailing wage for construction projects
<b>Domestic Content:</b>	Build America Buy America requirements
<b>Eligible Entities:</b>	Schools; air pollution control agencies, other public or non-profit private agencies, institutions, and organizations; individuals
<b>Target population:</b>	Prioritizes disadvantaged schools w/ demonstrated funding needs
<b>Stacking Funds:</b>	Consider stacking with Renew America’s Schools Grants, energy-efficient funding, or climate resilient retrofit funding. For schools in disadvantaged communities, consider stacking funding with other EPA programs listed above.

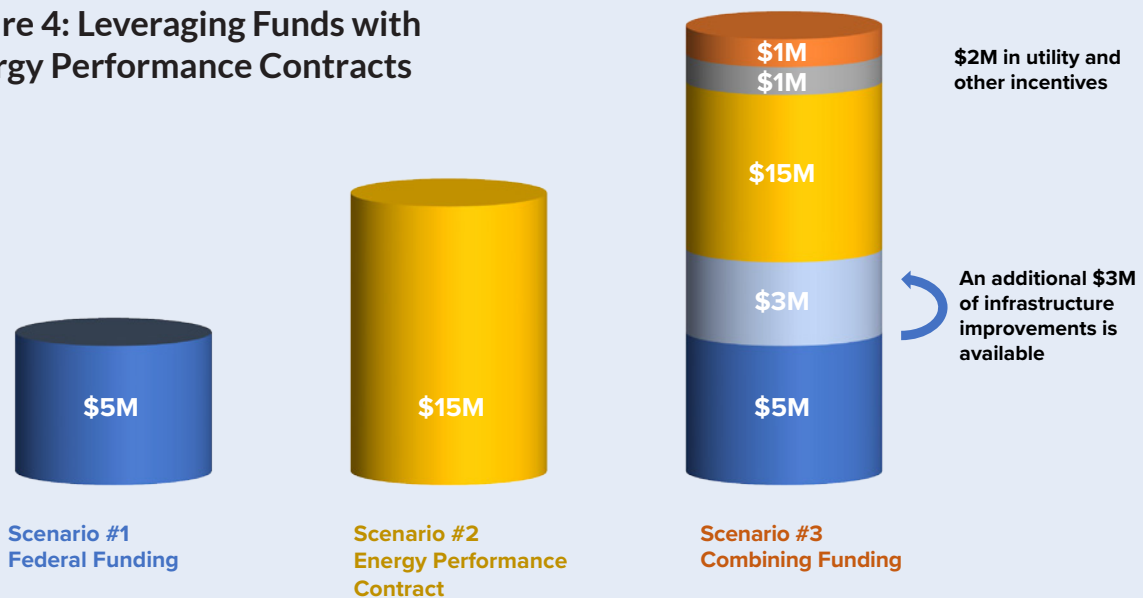


## A Note on Leveraging Federal Funds with Energy Performance Contracts:

Energy Performance Contracts (EPC) are designed to provide all up-front costs to implement capital improvements and energy efficiency upgrades. This is done through an Energy Service Company (ESCO) that helps building owners/managers identify and leverage all available federal, state, and local funds with utility rebates, tax credits, grants, and private investments. For every public dollar spent on building retrofits, ESCOs typically leverage at least \$4 of private money. The larger the project, the more potential savings, making this an option for SEAs coordinating school retrofits or school districts planning multiple retrofits. ESCOs also guarantee the performance of equipment such as HVAC and other ventilation measures, which protects the initial project investment.

ESCOs are currently implementing more than \$2 billion of school EPC projects annually. They provide the technical resources (project design, engineering, construction management, savings measurement and verification, and ongoing system operation consultations) and assist the school in assembling the project's financing package.

**Figure 4: Leveraging Funds with Energy Performance Contracts**



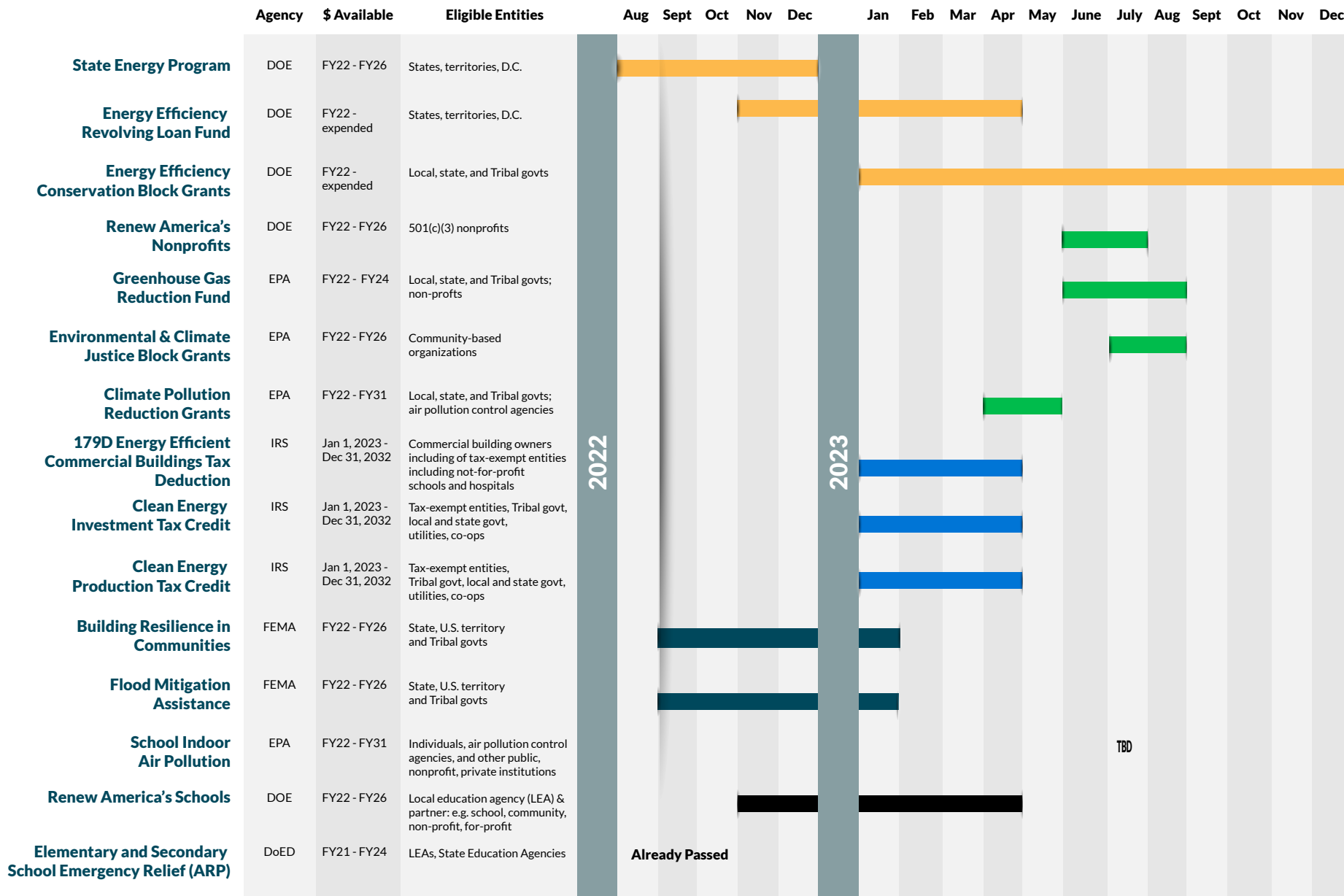
**Scenario #1:** If a school implements a standalone \$5 million heat pump project, the federal Investment Tax Credit (ITC) will pay up to 30% of the cost (\$1.5 million), assuming the project meets prevailing wage and apprenticeship standards. An additional 10% credit is available if the school is in an “energy community.” The school will have to supply the remaining \$3.5 million from its cash reserves, a bond issue, or a loan. In order to maximize the benefit of the heat pump efficiency, future energy conservation measures, such as insulation, new windows and doors, and new roofs should be considered.

**Scenario #2:** A standalone \$15 million Energy Performance Contract (EPC), implemented by an Energy Services Company (ESCO), will enable the school to modernize its infrastructure for the long term with upgraded lighting systems, ventilation systems, insulation, windows and doors, roofs, and water conservation measures. The EPC will generate enough savings, guaranteed by the ESCO, to repay its cost over the term of the contract. The EPC will benefit from utility incentives, state grants, and private investments assembled by the ESCO.

**Scenario #3:** A comprehensive project that combines the standalone heat pump project and the standalone EPC will modernize the school infrastructure for the long term and repay its cost from savings. The energy conservation measures in the comprehensive project will significantly reduce the school heating and cooling load and reduce the cost of the new heat pumps. The efficiency measures will produce enough savings to eliminate the need for additional funding required in Scenario #1. Utilities often have incentives or other programs for large-scale energy efficiency projects that are captured in Scenario #3. Because Scenario #3 is doing a deeper energy retrofit, there are more projected energy savings (\$3M), which are leveraged to finance the project on the front end.

Credit: NAESCO

### Figure 5: Application Timelines



# 4. TOOLS AND RESOURCES

## TOOLS TO IDENTIFY DISADVANTAGED COMMUNITIES

In keeping with BGA's Better Buildings Approach and the federal Justice40 Initiative, equity should be built into the design of a building project. Potential projects should identify how applicable project benefits will flow to disadvantaged communities to the greatest extent practicable. Additionally, many of the federally funded buildings-sector programs identified in this roadmap have an explicit mandate to target disadvantaged communities as a J40 covered program.<sup>66</sup>

Below are the tools to help stakeholders, including grant applicants, identify which communities should be prioritized. Each federal agency may prefer or request the use of one tool over another in their program guidance. For example, the IRS will likely require the use of their energy communities mapping tool to qualify for the relevant clean energy bonus tax credit. However, it is worth noting that these tools are imperfect and if a disadvantaged community is not captured by one tool, a potential project could try to make their case by using the other tools available or providing additional evidence that the community is disadvantaged based on the objective of the program.

### CEQ's Climate and Economic Justice Screening Tool (CEJST):<sup>67</sup>

This tool was developed by the White House Council on Environmental Quality (CEQ) to implement Justice40 across federal agencies and identify disadvantaged communities based on those exceeding thresholds for climate and economic indicators including: climate change; energy; health; housing; legacy pollution; transportation, water and wastewater; and workforce development.

**Tip:** The map function is most useful when used at the city, zip code, or census tract level to identify disadvantaged communities indicated with a gray color. Note: Federally recognized Tribal lands are considered disadvantaged in their entirety.

### DOE's Energy Justice Mapping Tool<sup>68</sup>

This tool was also developed to implement Justice40; however, it utilizes a varying set of 36 indicators. Some of these indicators overlap with the CEJST, but DOE's tool includes additional energy-specific as well as demographic indicators and utilizes different thresholds in their methodology and may be used to further prioritize projects.

**Tip:** The search function is most useful when used at the zip code or census tract level, which provides summary information, including if an area is disadvantaged. It also allows users to access a full report of how the community scored on all 36 indicators.

## DOE's Energy Justice Mapping Tool for Schools

This tool can be used to produce reports on a specific school facility and may be useful for a grant application process. Metrics include whether the school is located in a disadvantaged community (DAC), whether it is in a rural location (coded as 41, 42, or 43), whether it is designated as a community shelter, the percentage of students who are eligible to receive free and reduced priced meals, and whether the school qualifies for Title I Schoolwide programming. This is particularly relevant for the prioritized target populations for Renew America's Schools grants and FEMA grants.

## IRS' Energy Communities Mapping Tool

This map can be used by those wishing to take advantage of the 10% energy communities bonus credit for the ITC or PTC clean energy tax credit. The map identifies census tracts and directly adjoining tracts that have had coal mine closures since 1999 or coal-fired electric generating unit retirements since 2009. It also identifies metropolitan statistical areas (MSAs) and non-metropolitan statistical areas (non-MSAs) that have had 0.17% or greater direct employment related to extraction, processing, transport, or storage of coal, oil, or natural gas with high unemployment. However, the map does not include brownfield sites which also qualify for energy community bonus credits.

## EPA's EJScreen

This environmental justice (EJ) screening and mapping tool combines environmental and demographic indicators to identify EJ communities. EJ communities are those that are disproportionately burdened with environmental and health hazards and are often low-income and/or communities of color.

**Tip:** Use the map function to identify the area of interest at the city/town or zip code level.

## State EJ screening tools

In addition to the federal screening tools previously listed, some states may have their own EJ screening tools that are more customized to the environmental justice issues specific to those states. These tools may also be utilized to make the case that a community is disadvantaged and can benefit from the proposed project.

## BlueGreen Alliance Resources

The BlueGreen Alliance has developed several resources to support education and implementation of both the BIL and the Inflation Reduction Act, including how to access the investments from these laws and ways to maximize their benefits for workers and communities. Below are some relevant BGA resources for the programs listed above:

- [BGA Resource Center](#) (our central page for all BIL and Inflation Reduction Act user guides and other resources)<sup>69</sup>
- [BGA Bipartisan Infrastructure Law User Guide: Buildings and Schools](#)<sup>70</sup>
- [BGA Inflation Reduction Act User Guide: Buildings](#)<sup>71</sup>
- [BGA Inflation Reduction Act Factsheets: Clean Energy Tax Credits](#)<sup>72</sup>
- Building Clean's [Good, Better, Best Criteria](#) for Healthy Building Materials<sup>73</sup>
- Building Clean [database](#) of domestically produced energy efficient retrofit materials and products<sup>74</sup>

## ADDITIONAL RESOURCES

Additional external resources are available on BIL and the Inflation Reduction Act.

### Inflation Reduction Act and BIL Guides

- Advanced Energy Economy: [Unlocking the Energy Transition](#)<sup>75</sup>
- World Resources Institute: [K12 Education and Climate Provision in the Inflation Reduction Act](#)<sup>76</sup>
- DOE: [Renew America's Schools grant - Informational Webinar](#)<sup>77</sup>
- White House: Inflation Reduction Act [Guidebook](#)<sup>78</sup>

### Funding Trackers

- DOE BIL program [tracker](#)<sup>79</sup>
- DOE Funding opportunities [tracker](#)<sup>80</sup>
- Environmental Defense Fund - Inflation Reduction Act [tracker](#)<sup>81</sup>
- Center for American Progress J40 funding [finder](#)<sup>82</sup>

### Technical Assistance

- The Local Infrastructure Hub: a national program designed to connect cities and towns with the resources and expert advice they need to access federal infrastructure funding to drive local progress in their communities<sup>83</sup>
- [Sustainable Facilities Tool](#): Procurement guide for energy-efficient, healthy, and climate-resilient commercial/public buildings<sup>84</sup>
- [Technical Assistance Directory](#): Includes more than 120 free technical assistance resources to help you implement climate programs<sup>85</sup>
- [BIL State Fact Sheets](#): Provides more detailed information about announced funding and projects in each state, along with anticipated funding by category over the next 5 years<sup>86</sup>
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