State Action Guide for Energy Resilience Projects Under FEMA's Building Resilient Infrastructure and Communities (BRIC) Program and Other Hazard Mitigation Assisstance (HMA) Programs

Quick Guide

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NASEO
National Association of State Energy Officials

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1. Purpose of This Document

This document serves as a supporting "Quick Guide" to the full State Action Guide for Energy Resilience Projects Under FEMA's Building Resilient Infrastructure (BRIC) and Communities Program and Other Hazard Mitigation Assistance (HMA) Programs – Technical Guide ("Technical Guide"). This Quick Guide captures the high-level components of the BRIC program for the energy sector. For a more comprehensive understanding of this information, please see the full Technical Guide. Like the Technical Guide, this Quick Guide will be updated annually to reflect the latest BRIC program details.

2. Roles and Responsibilities

BRIC applications are comprised of multiple layers of roles and responsibilities, including Applicants, Subapplicants, and Subapplication Partners. See Figure 1 for the hierarchy of BRIC players.

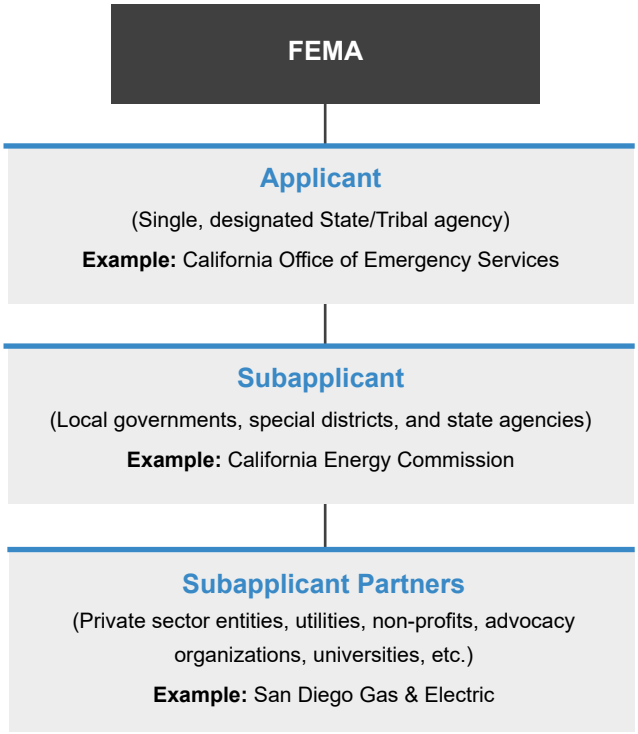


Figure 1: Hierarchy of Roles in a FEMA BRIC Grant Application

3. Timelines

The images below provide a timeline for the BRIC application and the overall BRIC project development and implementation.

3.1. BRIC Application Process Timeline

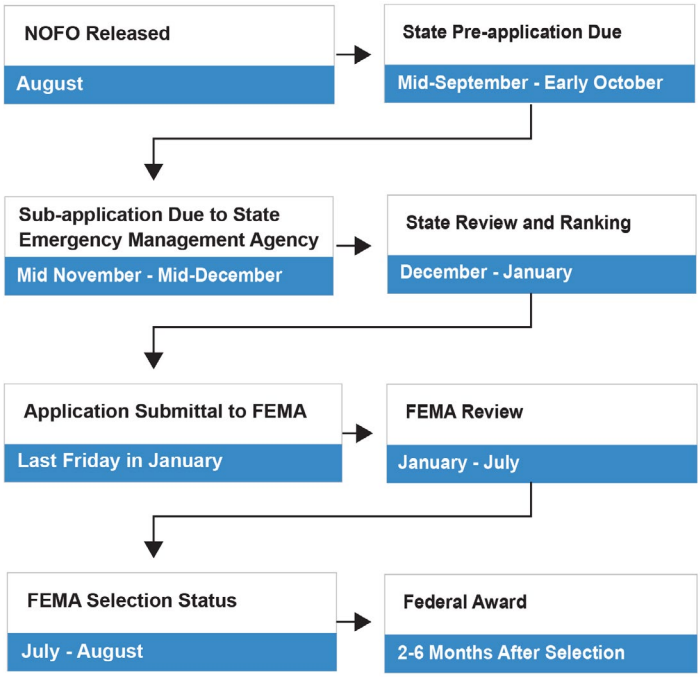
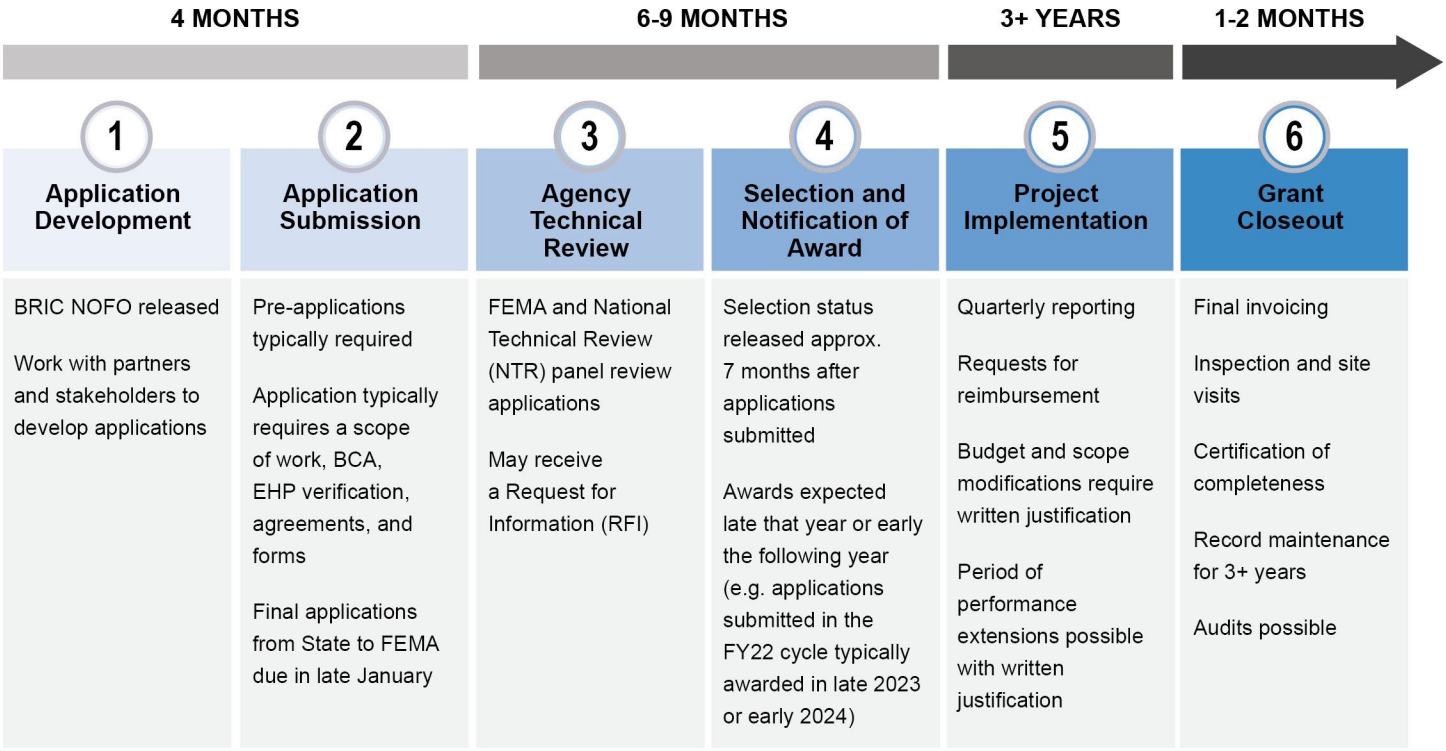


Figure 2: BRIC Application Process

3.2 Overarching BRIC Project Timeline



4. Eligible Activities

Eligible Activities		
Capability- and Capacity-Building Activities[1]	**Hazard Mitigation Project Examples (Non-exhaustive)**	**Management Costs**
• Energy Building Code Activities • Partnerships • Project Scoping • Hazard Mitigation Planning and other planning related activities	• Hazard Mitigation Planning and other planning related activities • Flood Protection • Microgrids • Electrical Grid Hardening • Seismic & Wind Retrofits • Utility Line Undergrounding • Hazardous Fuel Reduction	• States may submit subapplications for management costs to administer and manage the grant if awarded • Subapplicants can request up to 5 percent of the total project cost to manage the grant if awarded • Management costs are 100 percent federally funded

Project Types		
All Energy		
Backup generators	Submersible equipment	Hazardous fuels reduction
Building retrofits for community resilience hubs	Flood walls/gates	Ignition resistant construction
Relocation of assets	Stormwater pumps	Definsible space
Elevation of equipment	Culverts	Thermal encolsures
Electricity	**Natural Gas**	**Liquid Fuel**
Battery storage	Ties between gas pipelines	Flexible joints
Microgrids	Remote-operated valves	Pipeline insulation and trace heating
Base isolation transformer platform	Pipeline insulation and trace heating	Water line management
Breakaway service connectors	Water line management	Remote-operated valves
Dead-end towers	Flexible joints	
Fire-resistant poles	Submersible equipment	
Line-break protection systems	Vent line protectors	
Advanced water-cooling technologies		
Dry cooling		
Vented manhole covers		
Covered conductors		
Transmission /distribution line redundancy		
Load shed hardening		
Undergrounding of power lines		

Scale
Energy System-Wide Mitigation Measure
Critical Facility / End-User Mitigation Measure
Varies by Asset

5. Is BRIC the Right Program for My Energy Project?

BRIC seeks to fund innovative projects that reduce risks and future losses to critical infrastructure posed by natural hazards, focusing predominantly on benefitting disadvantaged communities. After using the previous section to determine eligibility to apply for BRIC, each entity should consider if BRIC is the most optimal or suitable choice for its project by considering the following questions:

BRIC Considerations	
Question	**Reasoning**
Does the BRIC timeline align with my project and community needs?	The BRIC application, review, and award process can take many months to complete before project work can begin. From the time the NOFO is released, it takes approximately one year for C&CB activities to be awarded and approximately 18 months for construction projects to be awarded. Thus, BRIC applications are best suited for non-urgent mitigation projects that are approximately one to two years away from being implemented. Once the project is awarded and can start, the standard period of performance (POP) is three years. Two, one-year extensions are possible, for a total of five years, with written justification. Additional extension may be granted in extenuating circumstances for highly complex projects. See the Overarching BRIC Project Timeline above for more information on the timeline for BRIC application development, project implementation, and grant closeout.
Does my organization have the resources to invest in BRIC subapplication development?	Developing a grant application takes significant time, effort, and resources. Even before the development of a grant application can begin, there is extensive coordination required to ensure that sufficient information is collected, partners and stakeholders are identified, and the project details and scope have been well defined. Choosing the right opportunity to pursue is critical, particularly with unprecedented funding available for energy infrastructure and hazard mitigation projects.
Does my project score well against the technical and qualitative evaluation criteria?	Go through each criterion and make a scoring sheet for your project. Do you meet the technical evaluation criteria? Could you, with ample preparation and coordination, capture some or all of the points in each qualitative criterion? Go through a scoring exercise for your project to see how competitive it could be. See Section 5.1 of the Technical Guide for more information on the evaluation criteria.
Is my project likely to be cost-effective?	Likelihood of cost effectiveness, without having to do a full BCA, can be estimated based on identifying if the project benefits critical facilities and services (hospitals, police stations, fire stations, water and wastewater service, electrical service), the service population benefitting from the project, and existence of historical loss/outage information. Mitigating these critical services typically generates significant benefits in the FEMA BCA Toolkit. For example, multiply the service population by the FEMA standard values for electrical service per person, per day ($174) to calculate a high-level BCR. Compare the total project cost to the preliminary benefit calculation.

BRIC Considerations, Continued	
Question	**Reasoning**
Does my organization have the required cost share?	Ensure your organization can account for the non-federal cost share amount in its fiscal planning starting one to two years in the future. Historically, most BRIC projects are funded by approximately 18 months after applications and sub-applications are submitted (slightly less for C&CB projects) and period of performance runs for three years, so multi-year planning is required. **Moreover, BRIC is a reimbursement-based program, so organizations must have the financial capacity to front project expenditures.**[2]
Does my office have a relationship with the state BRIC applicant (e.g., Emergency Management Agency)?	If the answer to this question is "No", it should not necessarily deter a potential subapplicant from pursuing BRIC. However, opening the line of communication with your State Emergency Management Agency, specifically the SHMO, as early as possible in the project planning process can be advantageous to build awareness for the project, confirm consistency with the State or Local hazard mitigation plan, and identify resources, partners, or support that may be required to submit the subapplication in the upcoming BRIC cycle.
If awarded, does my organization have the capacity to manage the BRIC grant?	Successful subapplicants will be responsible for understanding the requirements of the BRIC grant award, including reporting, requests for reimbursement, and closeout procedures. Resources, including staff, time, and subject matter expertise, are required to navigate the stipulations of the grant.
Is there a different funding source that is a better fit for my project?	Details about other funding sources for energy projects, including eligibility, cost-share, and criteria, can be found found in Section 12 of this document

6. Evaluation Criteria

FEMA's decision-making process for awards will be comprised of three basic review tiers: (1) Eligibility and Completeness, (2) Technical Evaluation, and (3) Qualitative Evaluation.

Qualitative evaluation

3

Scoring factors continue to place priority on equity and climate resilience, with new emphasis on reduction of carbon emissions, support of cybersecurity, and strong labor standards.

Strategic tip:

Make sure that you have the expertise on your team to fully quantify the costs and multi-faceted benefits of your project for the full project life while considering how your project may impact disadvantaged communities.

Technical evaluation

2

Scoring factors were updated this year to reflect an emphasis on equity and system-based mitigation.

Strategic tip:

Consider where your state or community currently stands on:
1) IBC/IRC adoption,
2) BCEGS score, and
3) Status as an Economically Disadvantaged Rural Community and/r Social Vulnerability Index score.

Eligibility and Completeness

1

Is dependent on the results of a Benefit-Cost Analysis. Use date and FEMA BCA methodology to demonstrate cost effectiveness of the project.

After determining eligibility, projects are reviewed against FEMA's seven technical criteria and six qualitative criteria.

Scoring Criteria

Technical
115 Points

Mitigates Risk to **Critical Infrastructure**	20 pts
Designation as EDRC, Tribal government, or Underserved/Disadvantaged	15 or 30 pts
Incorporation of **Nature-Based Solutions**	10 pts
Subapplicant **Building Code Effectiveness Grade** between 1-5	20 pts
Applicant Adopted **Mandatory Building Code** Adoption Requirement IBC/IRC	10 or 20 pts
Project Generated from **Previous Federal Award**	10 pts
Non-federal **Cost Share is ≥ 30%**	5 pts

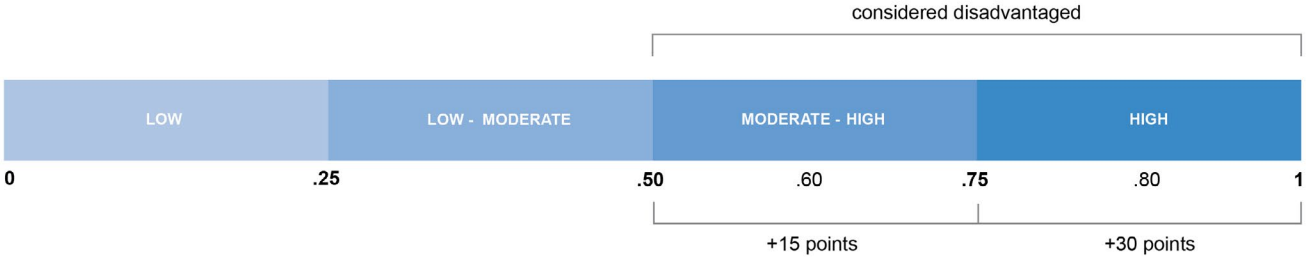
Qualitative
115 Points

Reduces Risk & Improves Resiliency through Project Benefits and Innovation	35 pts
Integrates **Climate Change and Future Conditions** into Design	20 pts
Leveraging Partnerships who support and promote the proposed project	15 pts
Proportion of the **Population Impacted –** especially disadvantaged communities	25 pts
Implementation Measures – how the costs, labor, and schedule will be managed	15 pts
Community Engagement and Outreach Activities – how stakeholders contributed to project planning	5 pts

6.1. Disadvantaged Communities

Subapplicants can use the [CDC's Social Vulnerability Index tool](#) to determine eligibility for evaluation criteria points that consider equity and benefits to disadvantaged communities.

Using the Centers for Disease Control and Prevention (CDC) Social Vulnerability Index (SVI) to identify areas as disadvantaged for technical evaulation:



7. Demonstrating Cost Effectiveness

Benefits in a FEMA BCA are expressed as **losses avoided** by implementing the project and as **added benefits**, such as economic, environmental, and social benefits. Costs include the total project cost plus maintenance costs over the project useful life (PUL). Losses avoided, benefits, and pitfalls and recommendations for BCAs are included below.

Table 1: Losses Avoided for the FEMA BCA Toolkit Relevant to Energy Projects

Physical Damages Avoided	Emergency Work Avoided	Loss of Function Avoided
• Generating stations • Transformers • Transmission lines • Substations • Poles • Offices • Fuel tanks • Pipelines • Tanks	• Utility staff overtime • Evacuation costs • Police overtime • EMS overtime • Fire service overtime • Debris removal • Cleanup • Emergency Operations Center costs	• Electrical power loss • Water/wastewater service loss • Emergency services disruption • Road closures • Bridge closures • Government building closures • Residential displacement • Loss of business revenue

Table 2: Economic, Social, and Environmental Benefits for Energy Projects in the BCA Toolkit

Economic Benefits	Social Benefits	Environmental Benefits
• Energy cost savings • Operations and maintenance savings • Increased property values	• Mental stress and anxiety avoided • Loss of productivity avoided	• Air quality • Water quality • Recreation • Food provisioning • Erosion control • Habitat creation

7.1. Common CBCA Pitfalls and Recommendations

Common CBCA Pitfalls and Recommendations	
Common Pitfall	**Recommendation**
Unreasonable or unjustified inputs	All inputs should be documented and reflect the best available data and be from a credible source, such as a design professional or government agency. Examples include an H&H Study, FEMA Flood Insurance Study, USGS surface water data, NOAA precipitation frequency data, US Census Data, and Department of Labor Bureau of Labor Statistics data.
Annual maintenance costs are not commensurate with mitigation project costs	For all project types (other than some acquisitions), technical reviewers expect to see at least some costs associated with annual maintenance.
The population served is not accurate	The population served includes the entire service area, not just that which is being mitigated by the proposed project OR includes only ratepayers, not the total number of residents/customers
Recurrence intervals are too high	While higher recurrence intervals, e.g., “500-year,” are indicative of a catastrophic event, they do not typically support cost-effective BCAs. Historical or expected damage should be based, to the extent possible, on more frequent, less catastrophic events.
No damages after mitigation	For all projects except acquisitions or relocations, it is reasonable to expect at least a small fraction of the residual damages after mitigation.
Lack of justification for the number of impact days	Examples of acceptable documentation include a statement from a building official on letterhead, a statement or outage report from a utility provider, and/or a news article.
Use of alternative methods	Non-FEMA BCA methodologies, e.g., other cost-effectiveness calculators, may only be used if pre-approved by FEMA in writing.[3]
Lack of supporting technical memo	A technical memorandum should accompany the BCA to document the analyst’s cost-effectiveness methodology, explain individual inputs, and provide context for supporting documentation.

8. Getting Help

FEMA provides many resources to applicants and subapplicants who may need assistance understanding and navigating the FEMA BRIC process.

8.1. Direct Technical Assistance

FEMA provides hands-on support to subapplicants through its Direct Technical Assistance (DTA) program, assisting from pre-application to closeout. FEMA can assist with everything from community engagement and partnership building to risk assessment and adaptation planning. Communities can request DTA online and there is no requirement for a previous sub-application or award to be considered. FEMA prioritizes assistance to disadvantaged communities, including those with SVI scores greater than 0.6, economically disadvantaged rural communities (EDRCs), and those with other compelling needs.

8.2. Online Resources

FEMA provides other resources for the development of BRIC applications and subapplications on its website, including:

1. **Recorded webinar series** that provides information, tools, and best practices to prospective BRIC applicants. Webinars cover such topics as: the NOFO, Technical and Qualitative Evaluation Criteria, Where Equity Fits into BRIC, and many more.
2. **Mitigation Action Portfolio**, which includes examples of successful, innovative hazard mitigation projects, including energy sector projects.
3. **Program support material** on FEMA.gov
4. “Office hours” with your State Emergency Management Agency
5. External resources, such as The Nature Conservancy’s Promoting Nature-Based Hazard Mitigation Through FEMA Mitigation Grants[4]

9. Top 10 Recommendations for Energy-Specific Projects to Optimize Success in BRIC

1. **Confirm eligibility.** Ensure that the subapplicant and proposed activity meets all eligibility criteria. Subapplicants (State Energy Offices, local governments, and public/municipal utilities) must have a FEMA-approved hazard mitigation plan if applying for construction projects, be able to fulfill the local cost-share requirement, and the project must mitigate risk to natural hazards.
2. **Consider competitiveness and innovation.** Projects are scored and prioritized using the BRIC technical and qualitative criteria, with a heavy focus on equity, system based mitigation, and innovation. The evaluation criteria require subapplications to describe how the proposed project will benefit disadvantaged communities. Showing cost-effectiveness is also critical to a competitive subapplication. Cost-effectiveness can be estimated by identifying the critical facilities are being mitigated, the service population benefitting from the mitigation of the energy asset, and existence of historical loss/outage information.
3. **Develop your value proposition.** Articulate the "why" for your project. It may be the most important project to your office, but if a reviewer does not understand the project's impact or benefit, such as its impact to the community, region, and/or critical energy services and infrastructure, it may lack the substance needed to score highly.
4. **Articulate how your project aligns with planning goals.** Project should be identified through established planning and evaluation processes, including risk and vulnerability assessments, climate action plans, local hazard mitigation plans, and energy security plans. The relationship between energy sector players and the hazard mitigation plan working group at the state or local level is the most crucial in ensuring readiness and competitiveness for BRIC. Subapplicants should include an explanation and documentation of those planning initiatives and how the project aligns whenever possible.
5. **Document everything.** Whenever possible, provide supporting documentation for each data point, fact, and assumption. Do not state something in the subapplication and assume the reader is savvy enough to accept it as fact. Refer to supporting documents in the subapplication narrative and provide context so the reviewers clearly understand which documents they should use to supplement their review. Ensure that attachments follow a naming convention with clear, descriptive titles. This also applies to partnerships. Include maintenance agreements, letters of support, and any community engagement documentation.
6. **Establish a clear connection between scope, schedule, and budget.** The subapplication's scope should include a detailed, step-by-step plan to implement the activities described. These steps should be broken down into logical pieces so the reviewer understands the exact process the project will follow. Those steps should directly align with the schedule and budget, including the terminology and phrasing. For example, if permitting is one step of the project scope, permitting should also be a line item in the schedule and budget.

Eligible Project Examples (non-exhaustive):

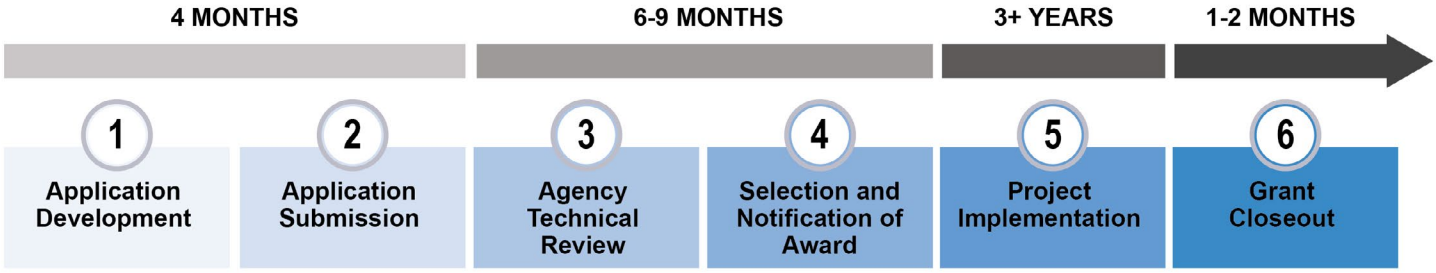
- Hazardous fuels reduction
- Relocation/Elevation
- Utility undergrounding
- Flood protection
- Backup generators
- Microgrids
- Thermal enclosures
- Feasibility Assessments
- Energy Building Codes
- Partnership building
- Planning related activities

7. **Use the right language.** Always assume the reviewer is a generalist operating at an eighth grade reading level. For highly technical projects, avoid jargon and ensure that the subapplication provides a comprehensive explanation of the project using layman's terms and plain language. Use key phrases and terminology from BRICs scoring criteria and priorities to complete each section of the grant application.
8. **Start earlier than you think you should.** Developing a subapplication takes significant time, effort, and resources. Even before subapplication development can begin, coordination is required to ensure that information is collected, partners and stakeholders are identified, and the project details and scope have been well defined.
9. **Familiarize yourself with the subapplication logistics and designated applicant agency.** Be aware of deadlines (including pre-application requirements), the method of application submittal (FEMA GO), and the applicant agency that will be reviewing your subapplication. Establish a username and password for FEMA GO well in advance of the submittal deadline and familiarize yourself with the system.
10. **Stay up to date on industry standards and requirements.** BRIC carries specific regulatory clauses and conditions. Be aware of them before you apply. These could include labor standards, building code adoption, procurement standards, and more. Once grant awards are made, ensure your department has sufficient resources (staff and/or funding) to support grant reporting and management.

BRIC Priority: Nature-based solutions

Energy Sector Example: Projects that retrofit, relocate, or floodproof electrical infrastructure near a stream and incorporate stream restoration to inhibit erosion and encroachment on the substation.

Case Study: Duhart's Creek Critical Infrastructure Restoration and Stream Protection Project. See Section 11.2 for more details on this project.



10. How to Complete the BRIC Subapplication

BRIC applications are comprised of seven sections. Each section has short answer prompt questions related to BRIC's priorities and scoring criteria. You should attempt to answer each question fully, providing back up documentation as attachments from reputable, peer-reviewed data sources. Users should attach a simple document, organized by subapplication section, in FEMA GO that lists out all the attachments provided in the entire subapplication and provides context for their meaning and significance to the project.

For example, a large engineering/technical plan and maps can be valuable attachments for a BRIC subapplication; however, the reviewer will need context to understand what those documents are conveying. Additionally, subapplicants can highlight specific sections in the attachments that will be especially relevant and helpful for reviewers. This helps to ensure reviewers understand the project scope and makes it easier for them to score the project against the evaluation criteria.

For more detailed information on how to complete the BRIC application, please visit **FEMA GO User Manual – Subapplication Development.**

Completing the BRIC Subapplication		
Sub-section Name	**Required and Recommended Content**	**Common Attachments and Supporting Documentation**
Project Information	Complete the organization you are applying for (your organization) and the organization you are applying to (FEMA), and the subapplication title (this should be attention grabbing and distinguishable title including the subapplicant name, subapplication type, projection description phrase, and year). For example, Oregon Statewide Energy Vulnerability Project Scoping FY22 BRIC. Subapplication type will be either project scoping or project.	Does not allow attachments
Subapplicant Information	Complete each question in the prompt. EO 12372 refers to when applicant-level agencies conduct a review of subapplications for federal assistance. This process is often referred to as the "State Clearinghouse" or "Federal Assistance Clearinghouse."	Does not allow attachments
Contact Information	Include information on the Subrecipient Authorized Representative (SAR), which is someone with budgetary/signature authority. The point of contact is the person with the most immediate connection to the project (e.g., the project manager).	Does not allow attachments
Community	Basic information and a brief narrative about the community in which the project will take place.	• Community Rating System (CRS) class documentation • Congressional map • Community map

Completing the BRIC Subapplication, cont.		
Sub-section Name	**Required and Recommended Content**	**Common Attachments and Supporting Documentation**
Mitigation Plan Information	Basic information about the approved/ non-expired Hazard Mitigation Plan (HMP). In the proposed activity field, add a description of how the project aligns with the goals and priorities of its FEMA-approved Local Hazard Mitigation Plan. Cite the relevant page number and/or section of the HMP.	• Approved/nonexpired Hazard Mitigation Plan or relevant excerpt from Plan • Highlight portion of Plan that demonstrates alignment with project, including page number(s)
Scope of Work	A detailed scope of work describes the need for the project, makes a strong energy specific hazard mitigation tie, identifies how the activity will be implemented and potential project risks, describes alternatives considered, outlines who will manage the work, and incorporates a detailed feasibility study.	• Technical scope of work memo, which may include the summary of approach, project components, schedule, budget, project benefits, project alternatives. • Project Schedule in Gantt chart/visual form or similar • Engineer/architect cost estimate or opinion of probable cost • News articles showing history of hazard / energy disruption • Energy planning documents, including renewable energy plans, sustainability plans, etc. with relevant areas highlighted to demonstrate project alignment • Maps of project location • Feasibility studies • Maintenance agreement letter, signed and on letterhead of relevant organization • Data from NOAA, US Census, and Department of Labor to support qualitative criteria • Letters of support from state and local officials, subapplicant partners, NGOs, nonprofit organizations, elected representatives, etc. • Community engagement and outreach materials and results
Schedule	Detailed project schedule with task descriptions mirrored in the Scope of Work. The total period of performance must not exceed 36 months.	Does not allow attachments

Completing the BRIC Subapplication, cont.		
Sub-section Name	**Required and Recommended Content**	**Common Attachments and Supporting Documentation**
Budget	Detailed cost estimate with each line item mirrored in the scope of work and schedule. It should include the item name, category, quantity, unit, unit price, and total.	Does not allow attachments
Cost share	The subapplicant must acknowledge and accept the cost share requirement and identify the source and available date of matching funds.	• Cost share commitment letter that includes the project title, total cost, Federal share, and non-Federal share • Letters can come from all relevant parties providing cost share, including subapplicant partners
Cost Effectiveness	Projects must be cost-effective, demonstrated through use of FEMA's BCA Toolkit Version 6.0.	• BCA technical memo • BCA report (export from BCA Toolkit) • BCA Toolkit exports • Outage reports • Trends in energy information used in the BCA • Supporting FEMA guidance on BCAs
Environmental and Historic Preservation Review	Identify any potential environmental or social risks and provide site photographs, FEMA Flood Insurance Rate Maps, wetlands maps, topographic maps, and other documentation as back-up.	• Flood insurance maps • Wetland maps • Topographic maps • Historic districts map
Evaluation	Description of how the involvement of partners will enhance the mitigation activity outcome and how anticipated future conditions are addressed. Studies on related energy specific topics can provide valuable context. Discussion of prior supporting work that was funded by an HMA award or another federal grant.	• Comments from industry experts • Supportive studies • Additional details on partnership involvement (if responses cannot fit in the provided dialogue box on FEMA GO) • Deliverable from previous supporting study funded by federal award
Location	Detailed description of the proposed project site and benefitting area.	• Project location map • Onsite photographs

11. Case Studies

11.1. Saint Elizabeth's Hospital and DC Emergency Communications Microgrid Project

Awarded under FY 2020 BRIC, **The Saint Elizabeths Hospital Campus and DC Emergency Communications Microgrid Project** is an example of a system-based mitigation project that would directly **reduce risk to multiple, interrelated community lifelines and serve disadvantaged communities**. The proposed microgrid will benefit Saint Elizabeth's Hospital as well as the George Washington Health Hospital and Ambulatory Pavilion at Saint Elizabeth's East. These facilities represent the District of Columbia's only public psychiatric facility for individuals with severe and persistent mental illness, as well as the only emergency department east of the Anacostia River which serves nearly 23 percent of the DC population.

The project will provide a redundant power supply to a critical community medical facility (Health and Medical); provide an additional power source (Energy); ensure that 911 dispatch and emergency coordination remain operational at the DC Unified Communication Center (Communications); could provide power to the surrounding community during outages (Food, Water, and Shelter); and will provide emergency power to the Green Line of the Metropolitan Public Transit System (Transportation). This project would protect a health system, an energy system, a communication system, a transportation system, and surrounding neighborhoods (social system).

Tags: Infrastructure, Disadvantaged Community, Critical Infrastructure, System-Based Mitigation

11.2. Duhart's Creek Critical Infrastructure Restoration and Stream Protection Project

Duhart's Creek, located along the east side of the City of Gastonia, North Carolina, is vulnerable to flooding and severe erosion from precipitation events. As storms have become more frequent and severe in recent years due to climate change, larger flood volumes have eroded the stream bank at a faster rate, threatening critical infrastructure including two sewer lines and several electrical lines. The sewer lines service 25,839 people while the electrical lines provide power to 9,800 people and damage to either would have cascading impacts to other community lifelines. The City of Gastonia will use $5.98M in FY 2021 BRIC funding to stabilize Duhart's Creek and restore it to its natural and beneficial function while realigning critical sewer infrastructure that runs parallel to the streambed. This includes a combination of floodplain benching, bank regrading, bioengineered structural enhancements, natural fiber matting surface stabilization, removing and replanting high-risk trees, and intensive revegetation with the appropriate native riparian plant species.

With a poverty rate nearly 5.6 percentage points above the 2020 national average, Gastonia suffers disproportionately from the effects of extreme weather events. In addition to garnering points for its use of nature-based solutions, the BRIC subapplication was awarded points for addressing mitigating risk for this vulnerable population.

FEMA Administrator Deanne Criswell, NC Governor Roy Cooper, and White House officials visiting the Duhart's Creek Project Site

Tags: Infrastructure, Energy, Nature-Based Solutions, Equity

11.3. Lane Electric Blachly-Lane Electric, Oregon, Alderwood Looped Power Transmission to Increase Reliability and Community Resilience Project

Lane County, Oregon and the Blachly-Lane Electric Cooperative developed an application for a critical infrastructure protection project submitted under the FY 2021 BRIC grant cycle.

The proposed project would build redundancy and increase reliability to the Blachly-Lane Electric Cooperative power grid by constructing a new electrical transmission line to interconnect with the neighboring Emerald People's Utility District system. Currently, there is a single transmission feed to Blachly-Lane's service territory from Bonneville Power Administration (BPA). This project will provide an alternate transmission feed so residents can maintain power in the event of a failure of BPA's line. The proposed project will maintain electricity to critical infrastructure and services, ensure access to continuous potable drinking water, and protect individuals with access and functional needs. This project represents an important step in protecting a critical lifeline in Lane County.

As a project selected for further review under FY 2021 BRIC, this project is pioneering how public – private partnerships can look within energy resiliency planning. There are several partners that will enhance the mitigation project outcome and ensure project success. The Emerald People's Utility District (EPUD) and the Bonneville Power Administration (BPA) were instrumental in the development of the project and will be engaged in aspects of project development and implementation.

EPUD will be an instrumental partner as BLEC and Lane County move forward with the project. Prior to the proposed activity, EPUD will reconductor a section of line along Territorial Road, so it is ready for conversion to 115 kV by the end of 2022 in preparation for BLEC's new transmission line. All the activities related to the transmission intertie will be closely coordinated with Blachly-Lane and completed prior to the proposed project. Residents served by EPUD will also benefit from the proposed project.

The BLEC grid receives its power through a single transmission line, powered by the Bonneville Power Authority (BPA). BPA supports the alternate transmission line project and has helped to develop the project; BPA will continue to be an important stakeholder and will remain in close coordination with BLEC over the project implementation process.

BLEC intends to engage residents within the service area in project development and implementation. BLEC proposes to hire a public relations firm to implement a community-based outreach campaign and support any necessary right-of-way activities.

At the time of the application, there was little guidance from FEMA about what partnerships in the energy industry should look like in the context of BRIC. Through the application process, stakeholders found that:

1. There is an opportunity for utilities to provide the cost-share gap that can afflict local governments.
2. Conversations establishing cost-share and long-term maintenance of the project should be had early in the development of the application.
3. Maintenance agreements should be obtained from both parties outlining their partnerships.

Tags: Infrastructure, Energy

11.4. Other Project Examples

Town of Princeville, North Carolina Relocation Project

Like many economically disadvantaged communities in the U.S., Princeville is located in an area prone to flooding, the 100-year floodplain of the Tar River. This project will mitigate repetitive by relocating 53 acres of water, wastewater, stormwater, and power utilities, as well as emergency support services and 54 units of affordable housing outside of the Special Flood Hazard Area. The project will also create over five acres of green open space.

Tags: Infrastructure, Energy, Nature-Based Solutions, Equity

Ironbound Resiliency Hub in Newark, New Jersey

Newark's Ironbound neighborhood is subject to repetitive flooding. The Ann Street School Hub will provide a central community center for dissemination of information and resources as well as emergency safe room and sheltering needs for extreme weather events. In addition, the Hub will be equipped with a solar array and microgrid for power resilience and provide stormwater collection and storage.

Tags: Energy, Nature-Based Solutions, Disadvantaged Communities

New York and New Jersey Port Authority: Elevation Floodproofing of Building 111

Building 111 is the primary pump station for domestic water and fire suppression systems throughout the Port Newark-Elizabeth Marine Termina. To protect and provide resilience to the facility, the Port Authority will elevate all critical electrical and mechanical equipment.

Tags: Energy, System-Based Mitigation

California: K-Line Transmission Hardening Project

The Eastern Coachella Valley, home to rural communities that endure average summer temperatures of 105 degrees, relies on consistent electrical power as a community lifeline. The project will consist of storm hardening 28-miles of the 92 kV powerline located in a high wind region by reducing spans between poles, replacing of poles, adding dead-end poles, and installing four new circuit breakers.

Tags: Infrastructure, Energy, Disadvantaged Communities

Kentucky Office of Energy Policy

The Kentucky Office of Energy Policy (OEP) is using BRIC C&CB funding to develop an innovative framework for the identification of potential mitigation projects. The framework incorporates hazard mapping, vulnerability assessments, partnership and capacity building, and outreach. The framework utilizes GIS to accurately map, visualize, and assess natural hazard risks for a given community. The framework also supports the establishment of a critical facility working group, which empowers local citizens to evaluate critical facilities in their community. Amanda LeMaster, from Kentucky OEP states that "making connections and partnerships is key, starting with the energy sector." The established framework will greatly assist Kentucky OEP in the identification of critical mitigation projects and the associated development of successful BRIC applications. The system framework is in pilot phase. If successful, it has the potential to be replicated among other State Energy Offices across the Country.

Tags: Partnership Building, Capability and Capacity Building, State Energy Office

12. Other Resilience and Hazard Mitigation Funding Sources

- DOE, Section 40101 – Preventing Outages and Enhancing the Resilience of the Electric Grid
- DOE, Section 40103 – Electric Grid Reliability and Resilience, Research, Development, and Demonstration
- DOE, Section 40107: Deployment of Technologies to Enhance Grid Flexibility
- FEMA, Safeguarding Tomorrow through Ongoing Risk Mitigation Act (STORM)
- FEMA, Hazard Mitigation Grant Program (HMGP)
- FEMA, Flood Mitigation Assistance Program (FMA)
- Housing and Urban Development (HUD), Community Development Block Grant-Mitigation

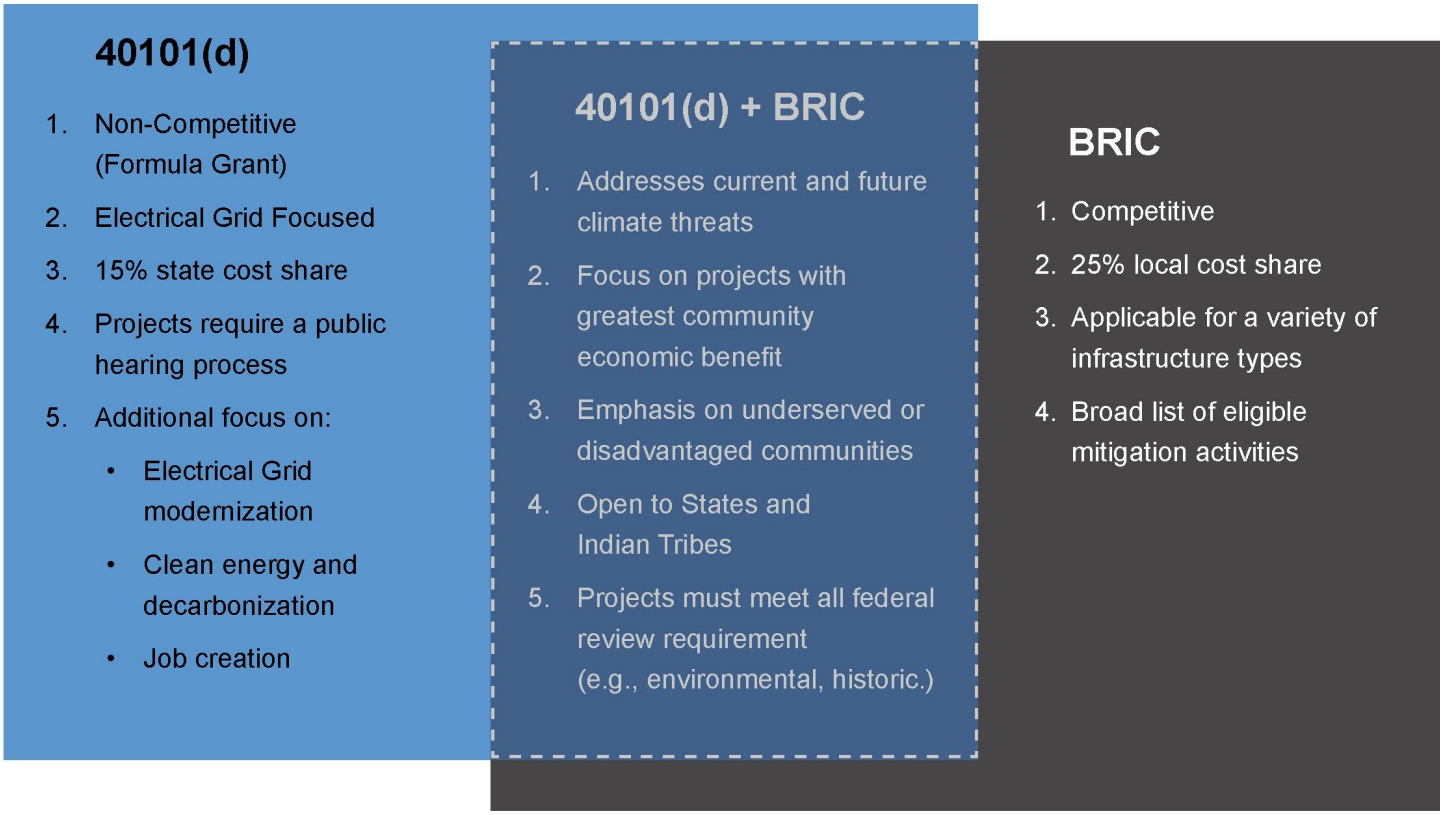
12.1. More on the 40101(d) Program

Section 40101(d) of the Infrastructure Investment and Jobs Act (IIJA) provides for a Formula Grant Program aimed at preventing outages and enhancing the resilience of the electrical grid. Funding may also be used for the training, recruitment, retention, and reskilling of skilled and properly credentialled workers in order to perform the work required for the particular resilience measures to be funded under the Program. Additionally, of the amounts made available under the Program each fiscal year, the State or Indian Tribe may use up to 5% for providing technical assistance and administrative expenses associated with the Program. Administered by the DOE, the formula for the grants is comprised of metrics including population, land area, and the historical precedence of experiencing disruptive events. The formula grant is open to States, Territories, and Tribal communities to address current and future resilience needs.

40101(d) application criteria include[5]:

1. Describe criteria used to award grants to eligible entities
2. Provide 3-5 objectives to guide resilience investment decisions
3. Prioritize projects that will generate the greatest community economic benefit
4. Provide description of notice and public hearing process
5. Submit report on the outcome of the public hearing

More information on federal and state resilience funding can be found in a publication on funding and financing opportunities NASEO developed together with the National Governors Association (NGA)[6] and a guidebook on resilience funding opportunities by the National Association of Regulatory Utility Commissioners (NARUC).



13. FY22 BRIC NOFO Breakdown (to be updated annually)

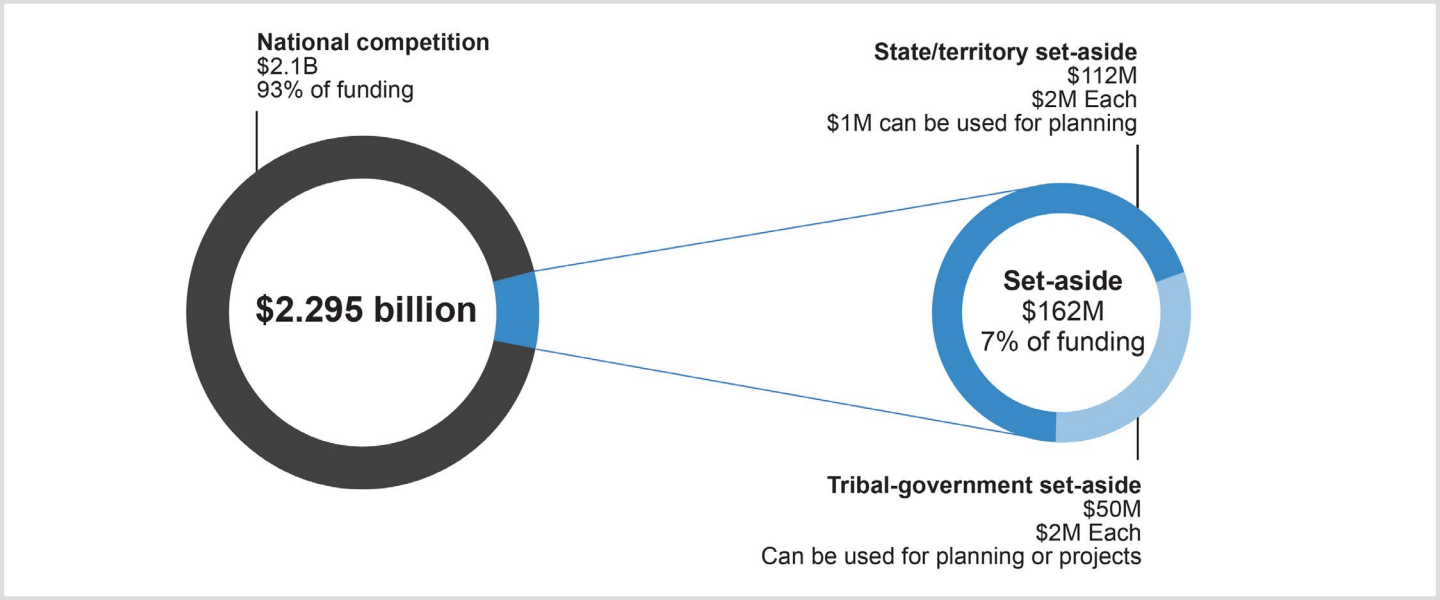
Program Overview

FEMA's Building Resilient Infrastructure and Communities (BRIC) program is an annual grant program that provides federal funds to implement natural hazard risk reduction activities. BRIC's third year will have a historic investment of nearly $2.3 Billion, more than double last year's allocation, to mitigate natural hazards nationwide. The FY2022 BRIC program has a clear focus on climate resilience and promoting equity by targeting awards toward disadvantaged communities in line with FEMA's 2022-2026 Strategic Plan.

BRIC Funding Evolution

The BRIC program has evolved from FY2021 and reflects the following changes for FY2022:

- Increased the State/Territory set-aside to **$112M**
  - Doubled the funding cap to $2M per applicant with $1M allocated for eligible hazard mitigation planning activities
- Doubled the Tribal set-aside from $25M to **$50M**
  - Applicants can use up $2M for C&CB activities
- Increased the National Competition total from $919M to **$2.1B**.
  - Applicants can submit an unlimited number of applications with a maximum federal share request of **$50M** per subapplication.



Five Key Program Evolution Takeaways

1. Increased funding = increased opportunities. States and tribal set-asides have been doubled, and the National Project Competition will have $2.1 B available.
2. Clear direction on how equity will be quantified for evaluation criteria.
3. Increased opportunity for direct technical assistance from FEMA.
4. Greater emphasis on climate change and projects designed to reduce carbon emissions.
5. New eligibility of cybersecurity activities as part of the larger project.

BRIC Decision-Making Process

FEMA's decision-making process for awards will be comprised of three basic review tiers: **Eligibility and Completeness, Technical Evaluation, and Qualitative Evaluation.**

Changes in points for the following **technical** evaluation criteria:

- Mitigating risk to one or more **community lifelines** is **no longer criteria** (-15 points)
- **+15 points** for any community with a **CDC SVI of 0.60 to 0.79**
- **+30 points** (compared to 15) for Designation as an **Economically Disadvantaged Rural Community**, or a federally recognized **Tribal government**, or any community with a **CDC SVI of 0.80 or higher**

Expanded criteria and guidence for the following **qualitative** evaluation criteria:

- **Risk Reduction/Resilience Effectiveness —** In addition to addressing inequalites, ancilliary beneftis could include reducing carbon emissions, improving cybersecuirty, and/or supporting the missions of NGOs and CBOs.
- **Implementation Measures —** The subapplication should demonstrate the ability and commitment to strong labor standards and how they will deliver high-quality work, avert disruptive and costly delays, and promote efficiency.
- **Community Engagement —** In addition to describing how communities, including overburdened and underserved communities, were engaged in the project development, projects should outline how such community planning will continue to help direct project execution.

System-based Mitigation

Reflecting FEMA's shift to 'system-based mitigation,' mitigating risk to community lifelines is no longer an evaluation criterion.

This shift acknowledges that community lifelines do not function independently but are rather integral pieces of a larger, interrelated critical system. For example, potable water, energy, and healthcare systems are all reliant on each other's ability to function in order to maintain the health and safety of their communities.

A system-based approach to hazard mitigation prioritizes projects that mitigate risk to as many community lifelines as possible, thus minimizing the cascading impacts of loss and maximizing benefits to the broadest population.

Federal Policy in Action

Understanding President Biden's Executive Order 14008, Tackling the Climate Crisis at Home and Abroad will be key to developing compliant and competitive BRIC funding applications.

The BRIC program is prioritizing assistance that benefits disadvantaged communities, in accordance with Executive Order 14008 and the Justice 40 Initiative. FEMA states they will ensure that at least 40% of program benefits go towards disadvantaged communities.

Four of the six BRIC qualitative evaluation criteria reflect the need for subapplications to speak to how the project will benefit disadvantaged communities:

1. Risk Reduction/Resilience Effectiveness,
2. Population Impacted,
3. Community Engagement and Other Outreach Activities, and
4. Leveraging Partners.

BRIC **reduces the non-federal cost share from 25 percent to 10 percent** for Economically Disadvantaged Rural Communities (EDRC) (defined in 42 U.S.C. § 5133(a) as small impoverished communities).

In FY22 the BRIC program is using the **Centers for Disease Control and Prevention (CDC) Social Vulnerability Index (SVI)** as a tool to identify areas as disadvantaged. Areas with CDC SVI greater than or equal to 0.6, as well as Economically Disadvantaged Rural Communities and geographic areas within Tribal jurisdictions are considered disadvantaged.

Applicants and subapplicants should also consider how their work would potentially benefit disadvantaged communities and minimize negative impacts to any disadvantaged populations in their **Benefit-Cost Analysis**. Furthermore, communties disadvantaged communities no longer need a 1+ Benefit-Cost Ration (BCR) to be eligible for consideration.

What's Next?

BRIC applications will open on Sept. 30, 2022, and close at 3 p.m. Eastern Time on **Jan. 27, 2023**. However, each applicants' deadline varies with most falling in November and December. Furthermore, many applicants require subapplicants to **submit pre-applications in September and October.**

Notes

1. FEMA. (2022). BRIC Hazard Mitigation Planning Activities. https://www.fema.gov/sites/default/files/documents/fema_fy22-bric-hazard-mitigation-planning-psm.pdf

2. FEMA. (2022). Submitting Phased Projects for BRIC or FMA Funding. https://www.fema.gov/sites/default/files/documents/fema_fy22-submitting-phased-projects-BRIC-FMA.pdf.

3. FEMA. (2022). The Department of Homeland Security (DHS) Notice of Funding Opportunity (NOFO) Fiscal Year 2022 Building Resilient Infrastructure and Communities, pg. 10. https://www.fema.gov/sites/default/files/documents/fema_fy22-bric-nofo_08052022.pdf

4. The Nature Conservancy. (2021). Promoting Nature-Based Hazard Mitigation Through FEMA Mitigation Grants. https://www.nature.org/content/dam/tnc/nature/en/documents/Promoting-Nature-Based-Hazard-Mitigation-Through-FEMA-Mitigation-Grants-05-10-2021-LR.pdf

5. FEMA. (2022). Oregon: Alderwood Looped Power Transmission. https://www.fema.gov/case-study/lane-county-oregon

6. National Governors Association. Resilience. (2021). Resilience - National Governors Association (nga.org)