



Federal Partners in Disaster Recovery: DOE, FEMA, and SBA

2019 CDBG-DR Problem Solving Clinic

Kansas City – Overland Park | July 30 – August 1, 2019

Agenda & Speakers

Agenda:

- Welcome
- DOE Energy Efficiency and Renewable Energy Resources for Disaster Recovery
- FEMA Hazard Mitigation Assistance Programs
- SBA Disaster Assistance

Speakers:

- Tennille Parker, HUD
- Lauren Nichols, ICF
- Adam Hasz, DOE
- Roosevelt Grant , FEMA
- Alejandro Contreras, SBA



U.S. DEPARTMENT OF
ENERGY

Office of
**ENERGY EFFICIENCY &
RENEWABLE ENERGY**

DOE Energy Efficiency and Renewable Energy Resources for Disaster Recovery

Adam Hasz

Residential Energy Fellow

U.S. DOE Building Technologies Office



DOE's Office of Energy Efficiency and Renewable Energy

The mission of the Office of Energy Efficiency and Renewable Energy (EERE) is to create and sustain American leadership in the transition to a global clean energy economy. Its vision is a strong and prosperous America powered by clean, affordable and secure energy.



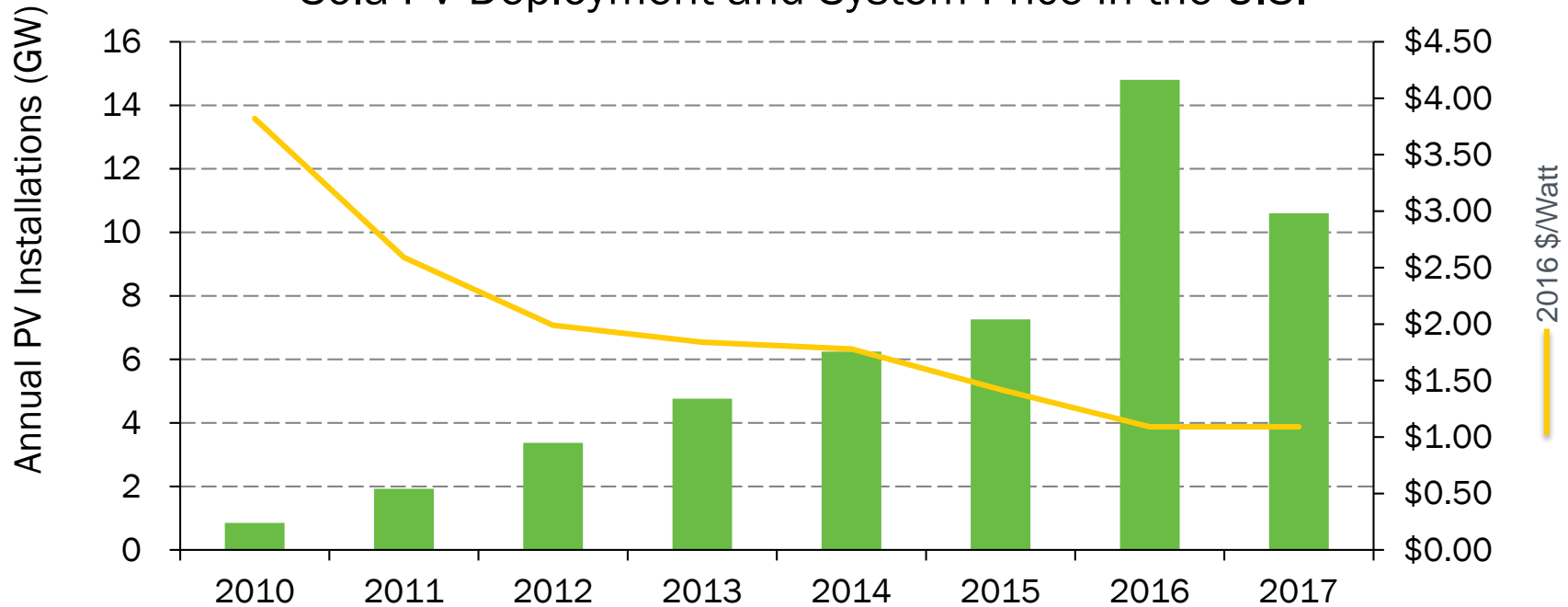
Five key takeaways from this presentation:

1. Energy Efficiency and Renewable Energy (EE & RE) technologies are now quite affordable
2. Take advantage of the Green Building Standard
3. EE & RE can provide resilience benefits
4. DOE has free resources to help implement EE & RE
5. You reach out to me (adam.hasz@ee.doe.gov) to talk more about DOE can support your recovery

EE & RE technologies are now affordable

The solar energy industry is one of the fastest growing industries in the U.S. Driven by falling costs, total solar installed capacity is now **58.3 GW** with over **two million solar systems** operating across the country.

Sola PV Deployment and System Price in the U.S.



Sources: National Renewable Energy Laboratory, "U.S. Solar Photovoltaic System Cost Benchmark: Q1 2016"; GTM Research and SEIA, "U.S. Solar Market Insight Report: 2016 YIR."

EE is required via Green Building Standards

Language from December 2018 CDBG-DR HUD Clinic slides

CDBG-DR grantee requirement for Green Building Standards:

- All new construction of residential buildings
- All replacement of substantially damaged residential buildings (reconstruction, changes to structural elements)

Green Building Standards include:

- ENERGY STAR • LEED • Enterprise Green Communities
- ICC-700 National Green Building Standard • Other equivalent comprehensive green building program (approved by HUD)

For rehabilitation of non-substantially damaged residential buildings, CDBG-DR grantees must follow guidelines specified in HUD CPD Green Building Retrofit Checklist

EE has many benefits – take full advantage!

High-performance green building construction creates:

- Energy bill savings for residents
- Improved home comfort
- Improved indoor air quality and health
- Reduced environmental pollution
- Overall cost savings for operating the electric grid

DOE tools can help your program build better

Building America Solution Center

Available at <https://basc.pnnl.gov/>

Solution Center Home

Help

FIND PROGRAMS & GUIDES

Building Components

Guides A-Z

Existing Homes

Home Improvement Expert™

DOE Zero Energy Ready Home

ENERGY STAR Certified Homes

EPA Indoor airPLUS

EPA WaterSense®

FIND RESOURCES

Sales Tool

Code Briefs

Case Studies

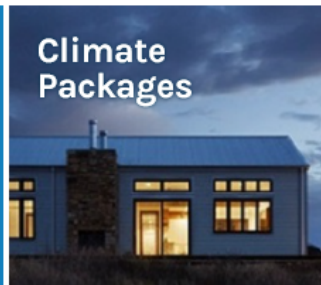
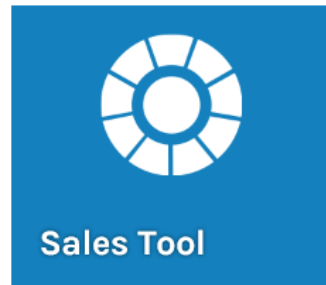
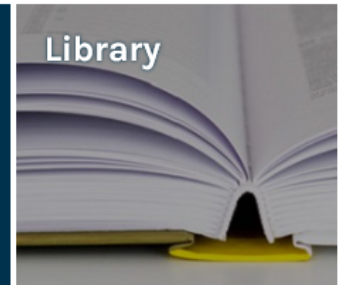
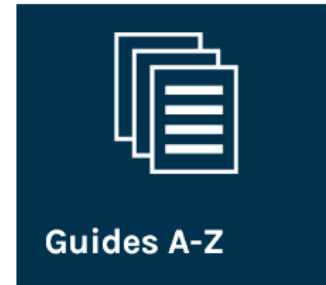
Image Gallery

Videos

CAD Files

Optimized Climate Solutions

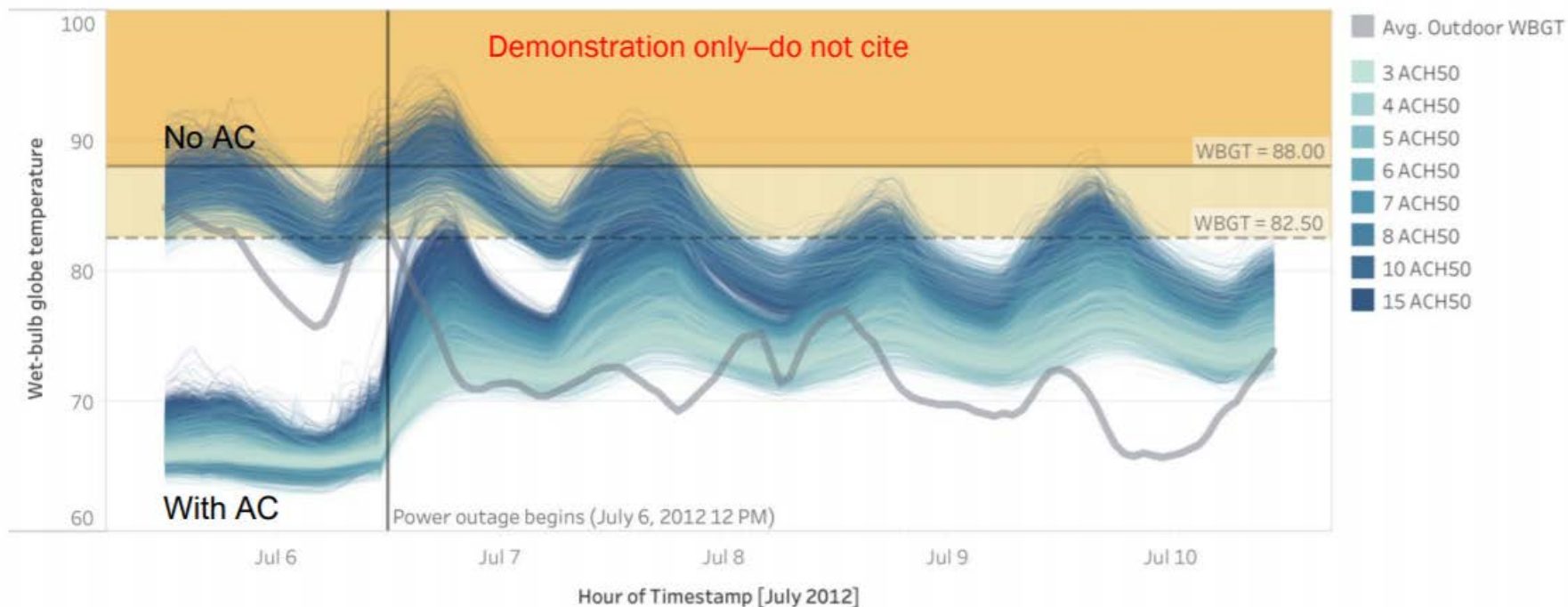
Welcome to our new homepage! The Building America Solution Center provides access to expert information on hundreds of high-performance construction topics, including air sealing and insulation, HVAC components, windows, indoor air quality, and much more. Click on the links below to explore the Solution Center.



EE Resilience Benefit #1: Passive Survivability

NREL simulated a four-day power outage for 8,000 homes in the Chicago area during a heat wave in 2012. Homes with low air leakage stayed cooler than leaky homes.

Indoor temperature response of all 8,000 representative home models, colored by air leakage level



Source: Eric Wilson, National Renewable Energy Laboratory

EE Resilience Benefit #2: Reduce Backup Costs

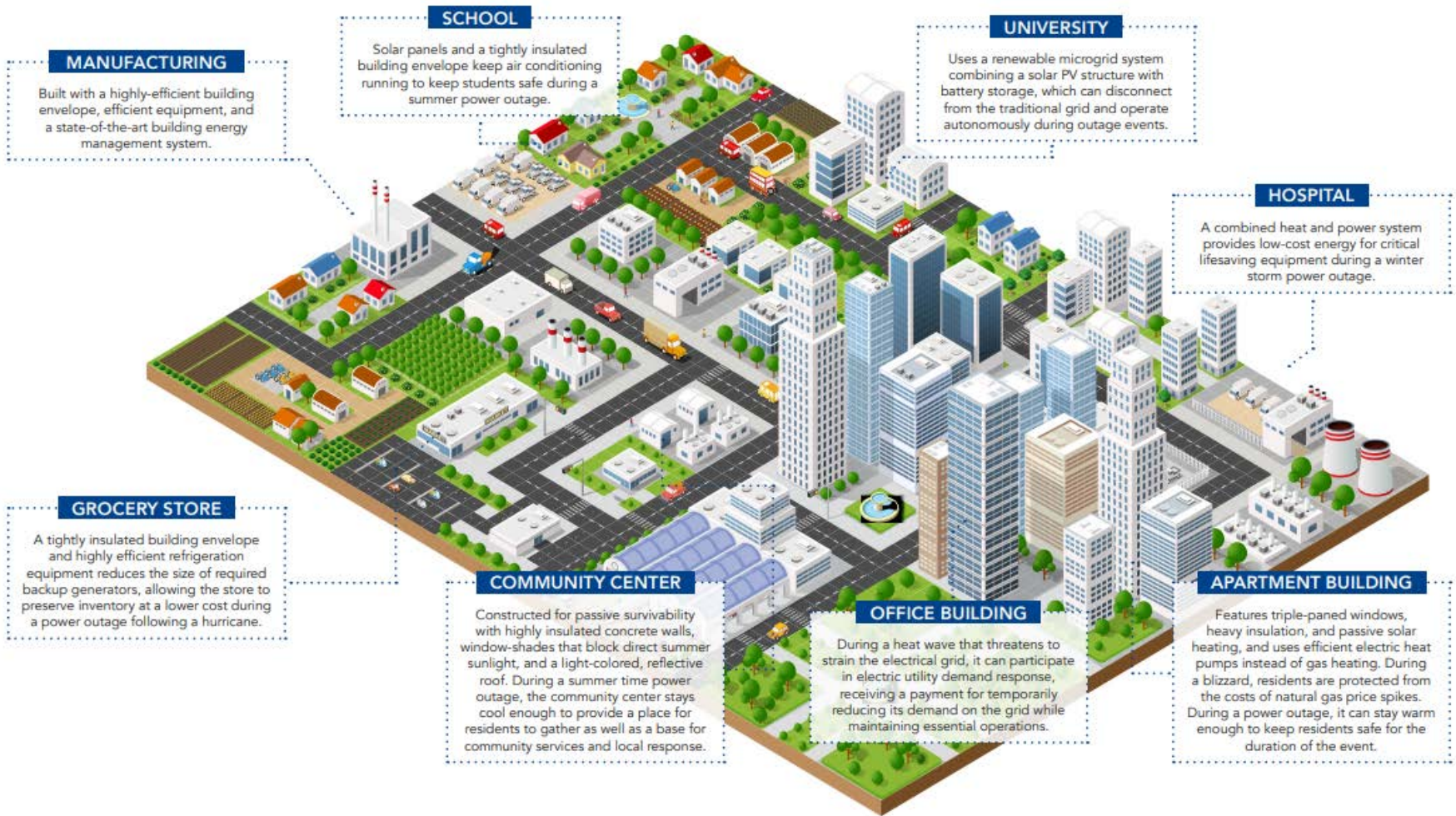
K-12 school buildings serve as emergency shelters in many communities. In this case study model of a high school in Orlando FL, the estimated upfront cost of a resilient backup microgrid goes down by around \$400,000 if energy efficiency investments reduce energy needs by 20%.



Electricity Use Scenario	Solar Generation Capacity	Battery Storage Capacity	System Cost
Baseline Annual Usage: 3,421,024 kWh	661 kW	1559 kWh	\$1,966,000
20% Energy Savings: 2,736,819 kWh	531 kW	1,247 kWh	\$1,575,000

Case study available at <https://www.energy.gov/eere/slsc/downloads/energy-efficiency-and-distributed-generation-resilience-withstanding-grid>

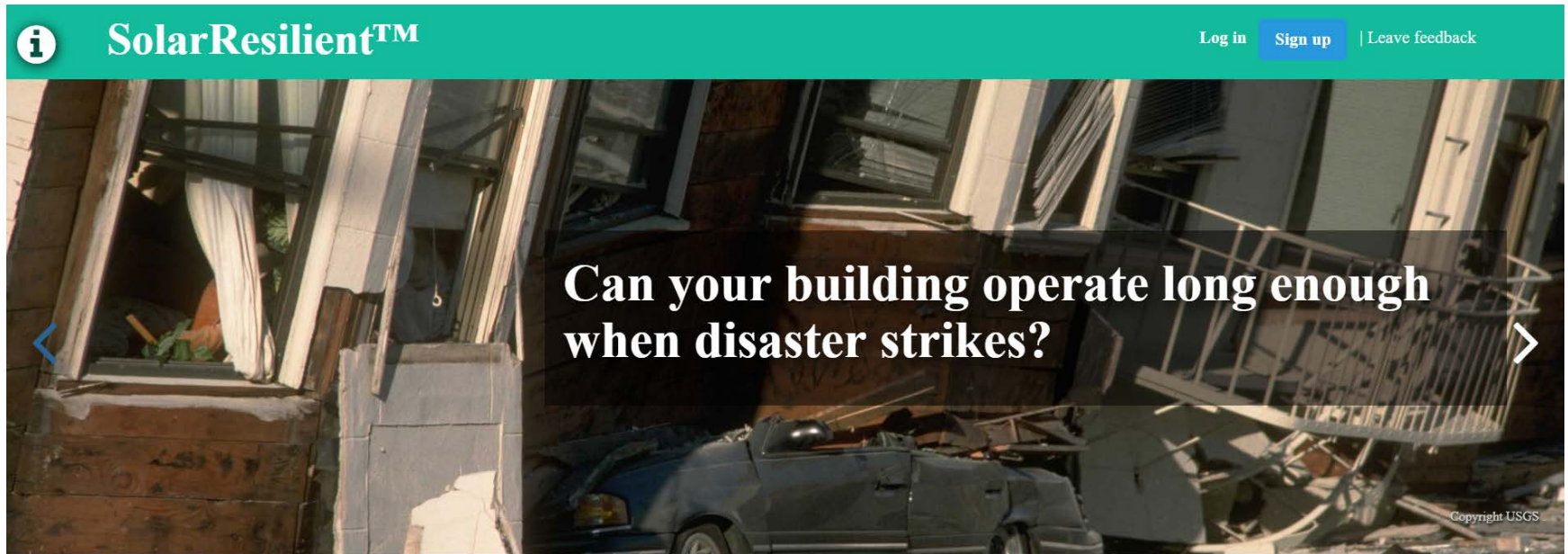
Different buildings need different strategies



Graphic from <https://betterbuildingssolutioncenter.energy.gov/sites/default/files/attachments/Resilience%20Infographic%204.8.19.pdf>

“SolarResilient” – PV + Batteries for Backup

This tool estimates the required rating and physical size of grid-connected photovoltaic (PV) and battery energy storage to provide power for extended periods during a large scale grid power outage. SolarResilient is designed for buildings that form part of a city’s resilience strategy.



Available from the DOE at <https://solarresilient.org/>

DOE resources can help with EE, RE, and resilience

RESILIENCE RESOURCE NAVIGATION



Find these resources at <https://betterbuildingsinitiative.energy.gov/resilience>

Microgrids – Resilient Energy for a Community

A microgrid is a group of interconnected loads and distributed energy resources within clearly defined electrical boundaries that acts as a single controllable entity with respect to the grid. A microgrid can connect and disconnect from the grid to enable it to operate in both grid-connected or island-mode.

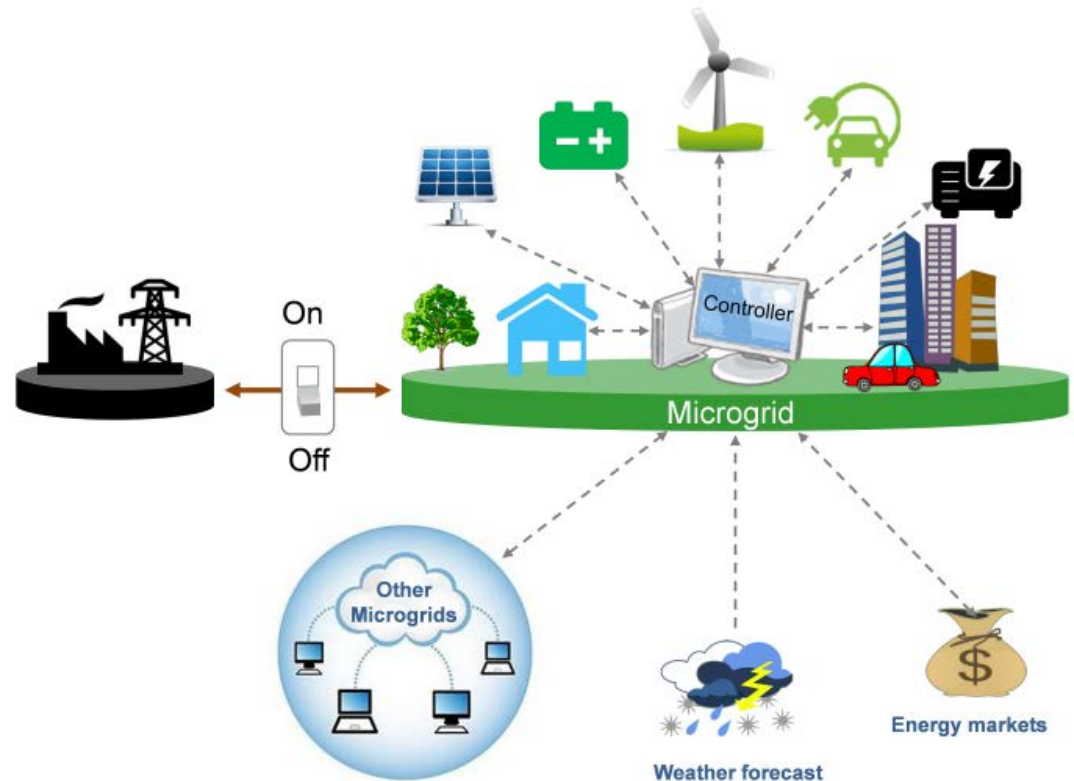
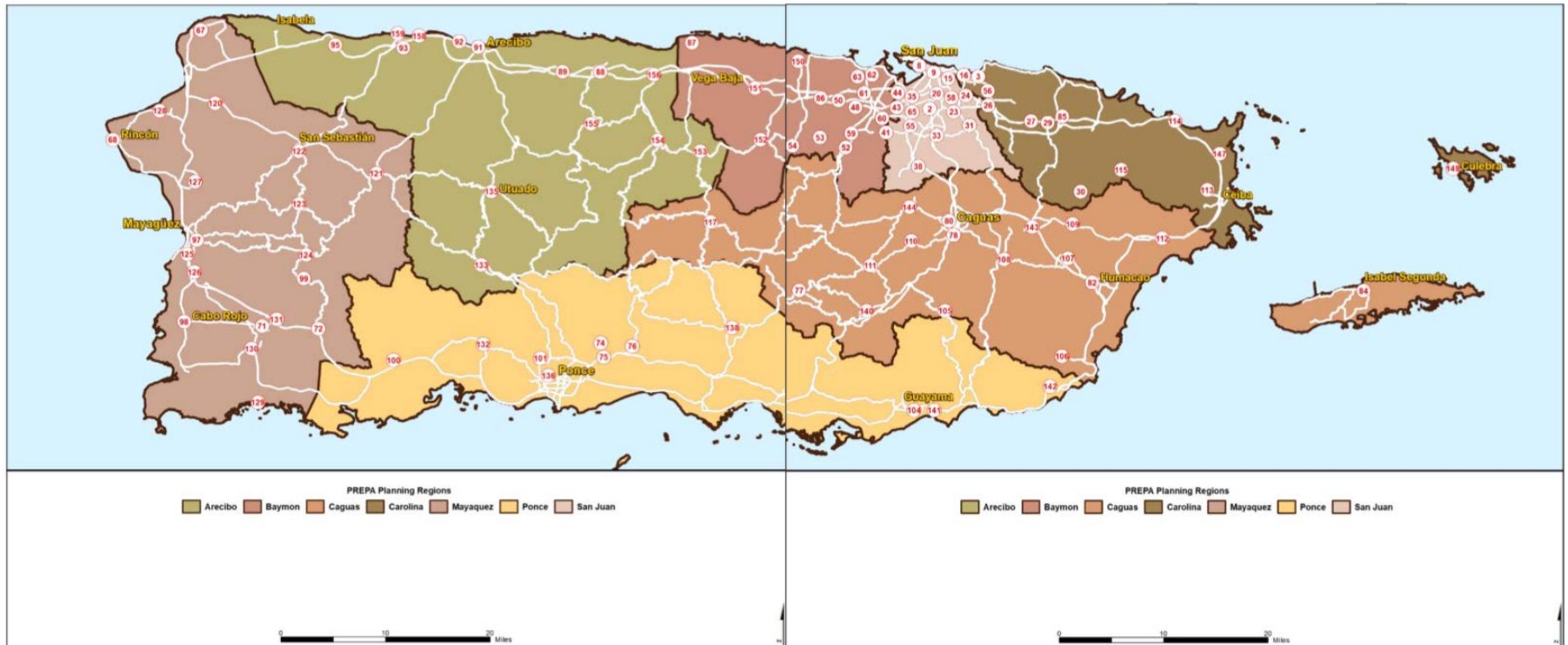


Image and text from <https://building-microgrid.lbl.gov/about-microgrids>

Modeling Ideal Microgrid Locations in PR

The Sandia National Laboratory team identified 159 locations with strong potential for microgrid application in Puerto Rico.



Report available at <https://www.osti.gov/servlets/purl/1481633>

DOE Labs can help with resilience planning

Resilience Roadmap

A Collaborative Approach to Multi-Jurisdictional Planning



To mitigate hazards and risks, the Resilience Roadmap offers comprehensive guidance for federal, state, and local entities to effectively convene at the regional level for adaptable and holistic planning. This multi-jurisdictional approach requires major cooperation across boundaries, considerable reliance on partnerships and multi-agency collaborations, and significant utilization of interdisciplinary teams.

Step-by-Step Process

To constructively lead intergovernmental planning efforts with tangible outputs, follow these steps in order:

- 1 [Intergovernmental Preparation and Coordination](#)
- 2 [Planning and Strategy Development](#)
- 3 [Plan Adoption, Implementation, and Evaluation](#)

WHAT IS RESILIENCE?

The ability to anticipate, prepare for, and adapt to changing conditions and withstand, respond to, and recover rapidly from disruptions through adaptable and holistic planning and technical solutions.

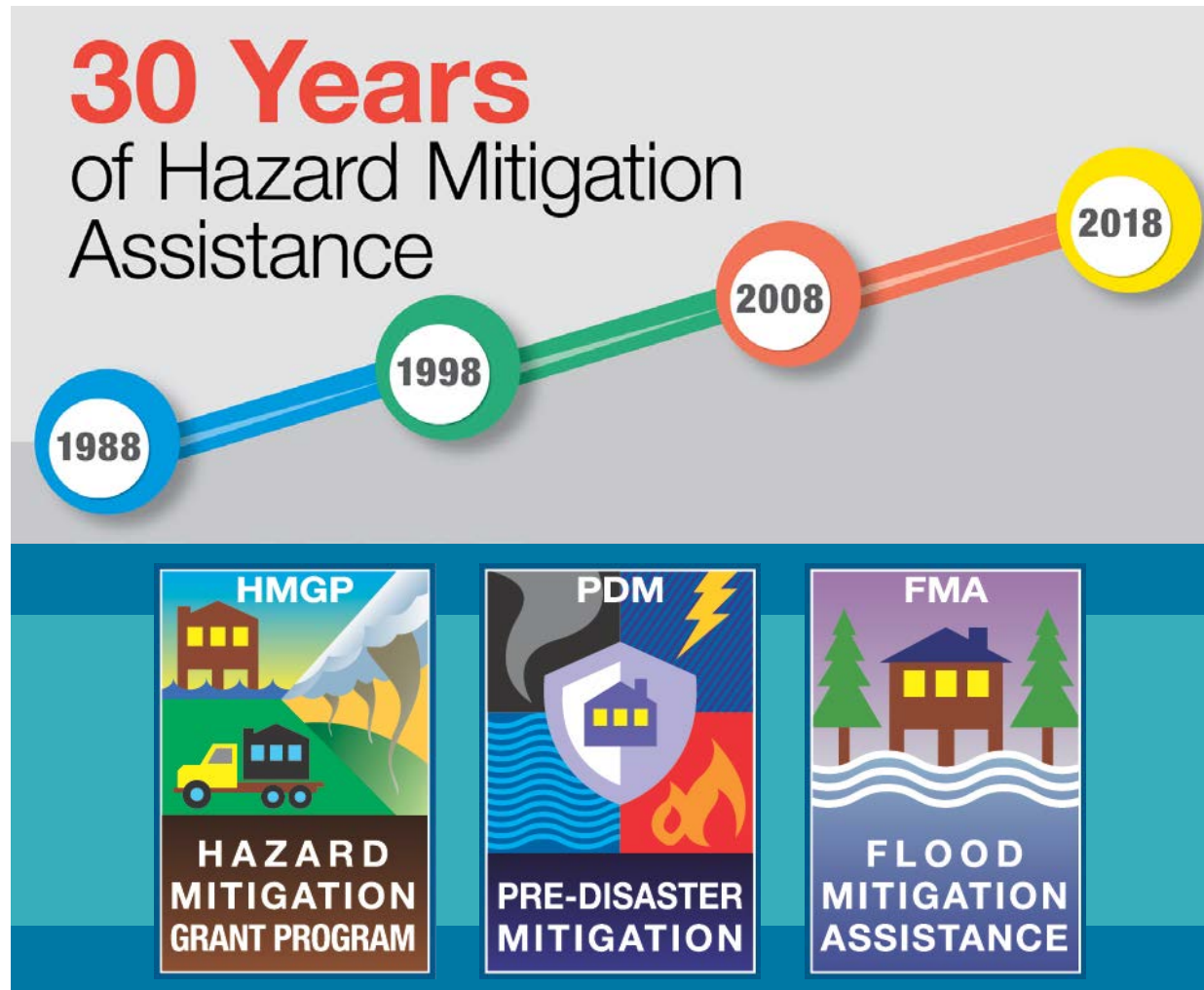
Contact [Eliza Hotchkiss](#) with questions about the resilience planning process.

How can the DOE help your recovery efforts?

The DOE has many free resources and can provide limited technical assistance to states and cities utilizing CDBG-DR funds for energy-related projects.

Email your specific CDBG-DR requests to Adam Hasz at adam.hasz@ee.doe.gov, and he will connect you to the proper DOE office that can provide assistance.

Hazard Mitigation Assistance Programs



Disaster Recovery Reform Act (DRRA)

DRRA Section 1234:

Building Resilient Infrastructure and Communities (BRIC)

- ✓ Establishes more than 50 new authorities and requirements across FEMA
- ✓ Designed to address the rising costs of disasters and reform federal disaster programs
- ✓ The Mitigation Directorate is responsible for implementing 13 of the new provisions, over half of which directly impact Hazard Mitigation Assistance programs



- ✓ Leverage 6% set-aside funding mechanism
- ✓ Encourage community-wide mitigation of critical lifelines
- ✓ Prioritize resilient infrastructure projects
- ✓ Competitive, risk-informed projects
- ✓ Build capacity and capability
- ✓ Support building code efforts

Common Hazards



Tornado



Hurricane



Wildfire



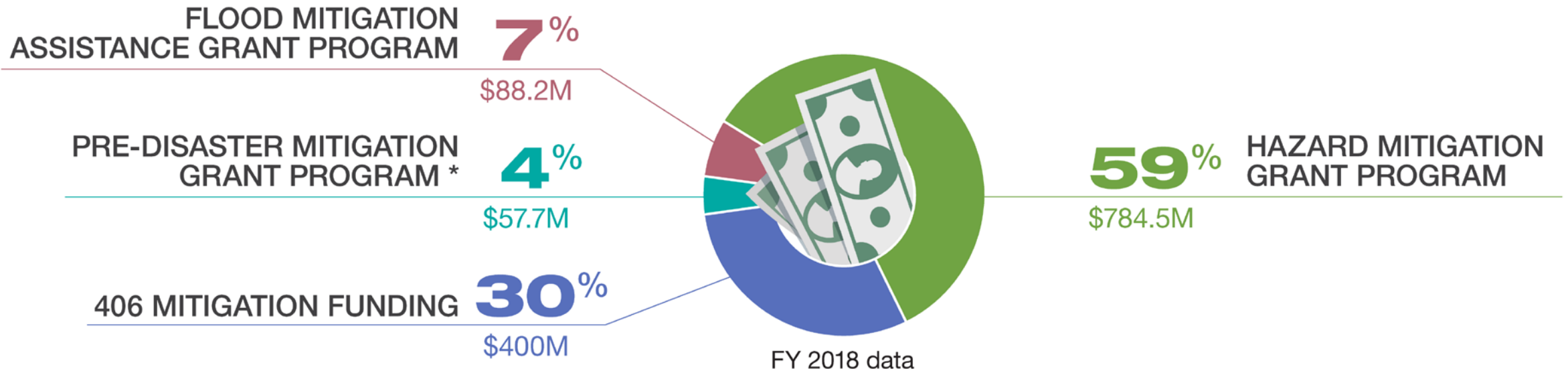
Flood



Earthquake

FY2018 HMA Funding

In FY 2018 more than **\$1.3B** in pre- and post-disaster **Hazard Mitigation Assistance Grants** was delivered to states, tribes, and territories, resulting in mitigation actions that will **reduce risk**








* This figure includes legacy PDM program funding

The Mitigation Opportunity

Natural Hazard Mitigation Saves



Natural Hazard Mitigation Provides the Nation \$6 in Benefit for Every \$1 Invested

National Benefit-Cost Ratio (BCR) Per Peril <small>*BCR numbers in this study have been rounded</small>		Beyond Code Requirements	Federally Funded
Overall Hazard Benefit-Cost Ratio		\$4:1	\$6:1
 Riverine Flood		\$5:1	\$7:1
 Hurricane Surge		\$7:1	Too few grants
 Wind		\$5:1	\$5:1
 Earthquake		\$4:1	\$3:1
 Wildland-Urban Interface Fire		\$4:1	\$3:1

This Interim Study quantified a number of benefits from mitigation, including reductions in:

- Future deaths, nonfatal injuries, and PTSD
- Repair costs for damaged buildings and contents
- Sheltering costs for displaced households
- Loss of revenue and other business interruption costs to businesses whose properties are damaged
- Loss of economic activity in the broader community
- Loss of service to the community when fire stations, hospitals, or other public buildings are damaged
- Insurance costs other than insurance claims
- Costs for urban search and rescue

Eligible Applicants and Subapplicants

- Applicants

- State agencies
- Indian Tribal governments

- Subapplicants

- State agencies
- Indian Tribal governments
- Local governments/communities
- Private non-profit organizations (HMGP only)

- Individuals and businesses are not eligible to apply directly to FEMA for HMA funds



HMA Grant Programs – Eligible Activities

	Projects	Planning	Multi-Hazard
	✓	✓	✓
	✓	✓	✓
	✓	✓	

Note: Applicants for PDM and FMA may apply for a maximum of 10 percent of the total funds requested in their grant application budget for management costs

Programmatic Requirements

- Cost Effectiveness
- Feasibility & Effectiveness
- Hazard Mitigation Plan
- Environmental Planning & Historic Preservation
- National Flood Insurance Program



For More Information

Specific criteria for each HMA program:

<http://www.fema.gov/hazard-mitigation-assistance>

Contact the FEMA Regional office:

<http://www.fema.gov/regional-operations>



Technical Documents

FEMA has published many technical documents to assist States, Indian Tribal Governments and communities to promote sustainable community development and mitigation practices

FEMA Document Library

<http://www.fema.gov/about-fema-library>

FEMA Building Science Website

<http://www.fema.gov/building-science>



Questions?



Federal Insurance and Mitigation Administration
Hazard Mitigation Assistance Division



U.S. Small Business
Administration

DISASTER ASSISTANCE

Businesses ■ Homeowners ■ Renters ■ Nonprofits



HUD CDBG-DR Problem Solving Clinic

Alejandro Contreras

Director of Preparedness, Communication and Coordination

Office of Disaster Assistance

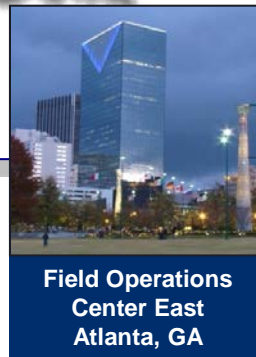
U.S. Small Business Administration

July 31, 2019

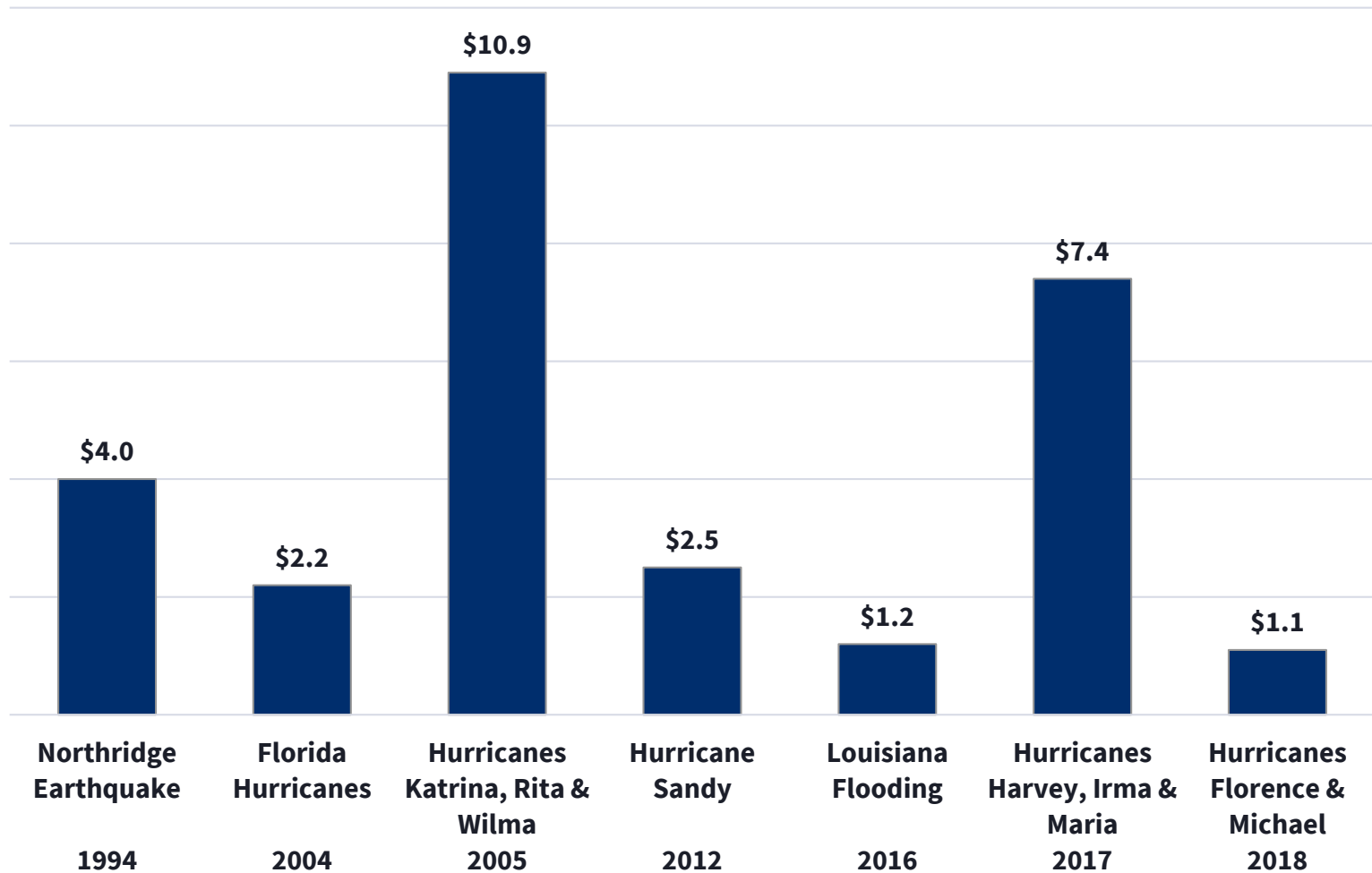
SBA's Role in Disaster Assistance

- SBA was created in 1953 as an independent agency of the federal government to aid, counsel, assist and protect the interests of small business concerns, to preserve free competitive enterprise and to maintain and strengthen the overall economy of our nation.
- Since 1953, SBA has approved nearly **\$64 billion** to 2.2 million businesses, homeowners and renters following America's worst disasters.
- After a disaster declaration for hurricanes, floods, tornadoes, earthquakes, wildfires and other disasters, SBA disaster loans are the primary source of federal assistance to help private property owners pay for disaster losses not covered by insurance or other recoveries.
- SBA has its own declaration making authority for disaster events that do not rise to the level of a Major Presidential Disaster Declaration for Individual Assistance.
- SBA offers low-interest federal loans to businesses of all sizes, private nonprofit organizations, homeowners and renters. SBA disaster loans can be used to repair or replace the following items damaged or destroyed in a declared disaster: real estate, personal property, machinery and equipment, and inventory and business assets.

Office of Disaster Assistance Centers



Billion Dollar Disaster Loan Activity



Major Disaster Events by Comparison

	KRW	SANDY	HIM	FLORENCE & MICHAEL
FEMA Referrals:	2.2M	404,107	2.94M	283,261
Apps Received:	423,254	88,045	344,057	53,926
Verifications:	324,863	71,683	256,603	40,166
Apps Processed:	423,254	88,044	344,010	53,868
Loans Approved	160,850	38,091	145,523	25,745
Dollars Approved:	\$10.9 Billion	\$2.5 Billion	\$7.4 Billion	\$1.1 Billion
Avg Home/Business	74/67 Days	25/42 Days	16/23 Days	7/10 Days
Peak Staff:	4,253	2,451	5,046	2,976

2005

2012

2017

2018

2020

Post-KRW

- Added workstations:
 - 1,800 in Ft. Worth
 - 350 in Sacramento Surge space
- Maintain reserve force of 2k
- Increased concurrent DCMS users from 800 to 10,000
- Implemented Case Management
- Increased loan limit to \$2 million
- DAIP and ELA launched (paperless application process)

Post-Sandy

- New messaging: 3 Step Process
- Separate home and business tracks
- RAPID Approval (higher credit scores)
- Increased unsecured loan limit to \$25,000 for physical and economic injury
- Launched DLAP and status updates
- Stop issuing paper applications (unless requested by survivor)
- Piloted desktop verifications (homes)

HIM/Post-HIM

- All initial verifications via desktop
- Comprehensive surge plan (facilities, equipment, staff)
- SBA and interagency staffing
- Expanded language services contract
- DCMS 2.0 Modernization
- Disaster Preparedness Campaign
- Revised 2018 Staffing Strategy
- Wharton Research Project
- New strategic and priority goals

SBA Disaster Loan Limits

Types of Loans	Borrowers	Purpose	Max. Amount
Business Loans	Businesses and private nonprofits	Repair or replace real estate, inventory, equipment, etc.	\$2 million *
Economic Injury Loans	Small businesses and private nonprofits	Working capital loans	\$2 million *
Home Loans	Homeowners	Repair or replace primary residence	\$200,000
Home Loans	Homeowners and renters	Repair or replace personal property	\$40,000
Mitigation	Businesses, private nonprofits and homeowners	Mitigate / prevent future loss of the same type	20% of verified physical damage. Homeowners limited to \$200,000

*The maximum business loan is \$2 million, unless the business qualifies as a Major Source of Employment (MSE).

SBA Loan Requirements

Requirements for loan approval:

- Eligibility - damaged property must be in a declared county.
- Credit History - Applicants must have a credit history acceptable to SBA.
- Repayment - Applicants must show the ability to repay all loans.



SBA's Disaster Loan Program

The law gives SBA several powerful tools to make disaster loans affordable:

- Low interest rates
- Long terms (15 or 30 years)
- Refinancing of prior debts (in some cases)

Current Interest Rates

Interest Rates effective for disasters occurring on or after April 30, 2019.

	<u>Home</u>	<u>Business</u>	<u>EIDL</u>	<u>Nonprofit</u>
No Credit Available Elsewhere	1.938%	4.000%	4.000%	2.750%
Credit Available Elsewhere	3.875%	8.000%	N/A	2.750%

*** Most SBA disaster loans are at the lower interest rates.**

Credit available elsewhere means that the disaster victim can provide for their own recovery through private sector borrowing on reasonable rates and terms without causing financial hardship, as determined by SBA.



U.S. Small Business
Administration



The Three Step Process: Disaster Loans

About Disaster Loans

The U. S. Small Business Administration (SBA) provides low-interest, long-term disaster loans to businesses of all sizes, private non-profit organizations, homeowners, and renters to repair or replace uninsured/underinsured disaster damaged property. SBA disaster loans offer an affordable way for individuals and businesses to recover from declared disasters.

STEP 1: Apply for Loan

- Apply: 1) online; 2) in-person at a disaster center; or 3) by mail.
- Apply online at the SBA's secure website disasterloan.sba.gov/ela.
- As a business of any size, you may borrow up to \$2 million for physical damage.
- As a small business, small agricultural cooperative, small business engaged in aquaculture, or private non-profit organization you may borrow up to \$2 million for Economic Injury.
- As a small business, you may apply for a maximum business loan (physical and EIDL) of \$2 million.
- As a homeowner you may borrow up to \$200,000 to repair/replace your disaster damaged primary residence.
- As a homeowner or renter, you may borrow up to \$40,000 to repair/replace damaged personal property.

STEP 2: Property Verified and Loan Processing Decision Made

- SBA **reviews your credit** before conducting an inspection to verify your losses.
- An SBA verifier will **estimate** the total physical loss to your disaster damaged property.
- A loan officer will determine your **eligibility** during processing, after reviewing any insurance or other recoveries. SBA can make a loan while your insurance recovery is pending.
- A loan officer works with you to provide all the necessary information needed to reach a loan determination. Our goal is to arrive at a decision on your application within 2 - 3 weeks.
- A loan officer will contact you to discuss the loan recommendation and your next steps. You will also be advised in writing of all loan decisions.

STEP 3: Loan Closed and Funds Disbursed

- SBA will prepare and send your Loan Closing Documents to you for your signature.
- Once we receive your signed Loan Closing Documents, an initial disbursement will be made to you within 5 days:
 - Physical damage:
 - \$25,000
 - Economic injury (working capital):
 - \$25,000 (In addition to the Physical damage disbursement)
- A case manager will be assigned to work with you to help you meet all loan conditions. They will also schedule subsequent disbursements until you receive the full loan amount.
- Your loan may be adjusted after closing due to your changing circumstances, such as increasing the loan for unexpected repair costs or reducing the loan due to additional insurance proceeds.

For more information or to find a local disaster center, contact SBA's Customer Service Center at 1-800-659-2955 (TTY: 1-800-877-8339).

sba.gov/disaster

August 2018 v1

SBA Office of Disaster Assistance Contacts for the Public

For More Information about SBA disaster assistance programs, go to:

www.sba.gov/disaster

Or, contact SBA's
Customer Service Center at:
1-800-659-2955 / 1-800-877-8339 (TTY)

Or by email at:
disastercustomerservice@sba.gov

Data Sharing Requests

Alejandro Contreras

Director of Preparedness, Communication and Coordination

Alejandro.Contreras@sba.gov

202-205-6734

Lynda Lowe

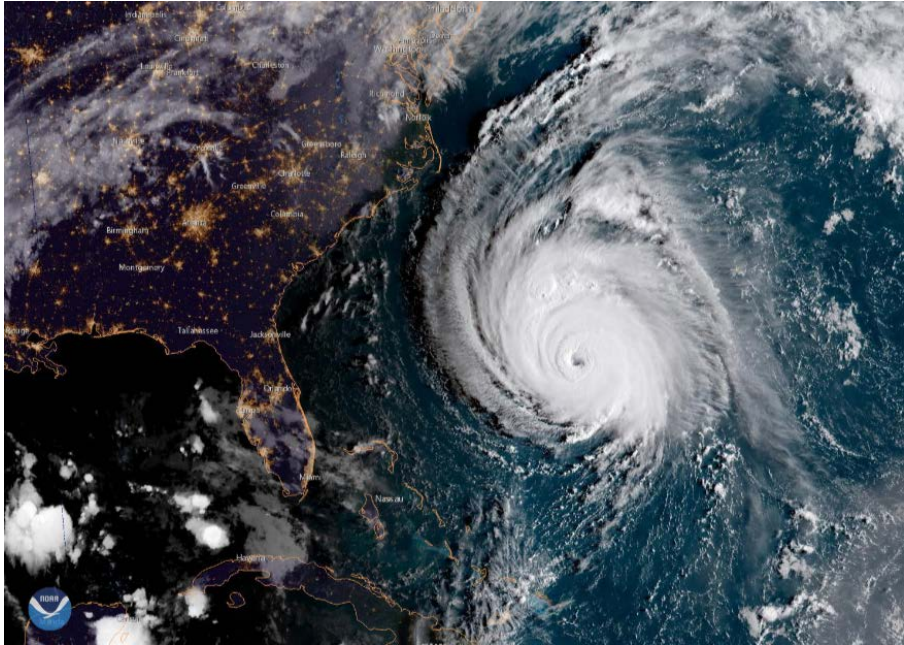
Program Analyst

Lynda.Lowe@sba.gov

202-205-6734

General Inbox

DisasterDataSharing@sba.gov



Questions?

Thank you!

Questions?

