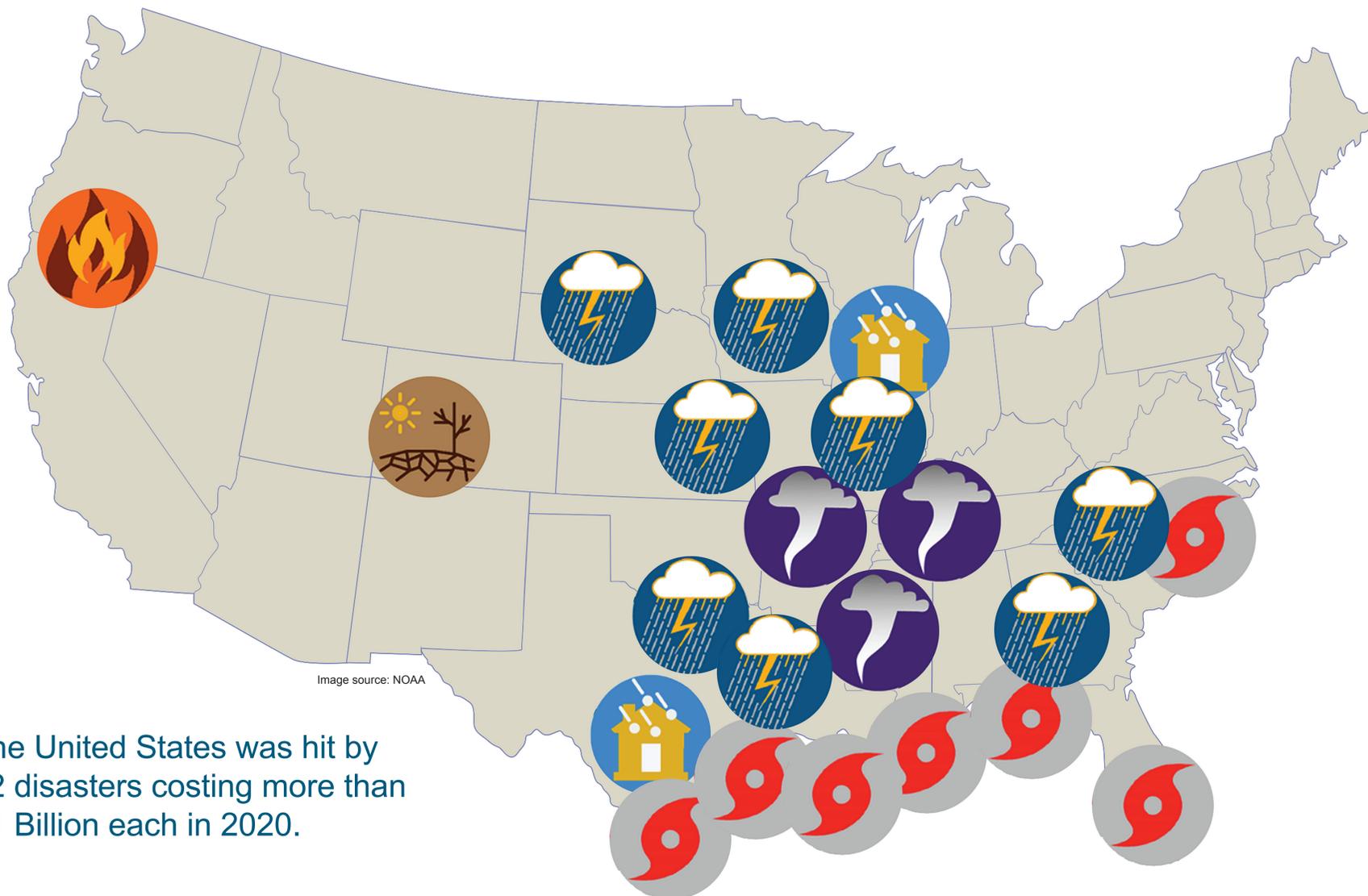


A New Tool for Disaster-Resistant Home Construction: DOE's Building America Solution Center Disaster Resistance Tool helping builders and contractors construct and renovate for disaster resistance.

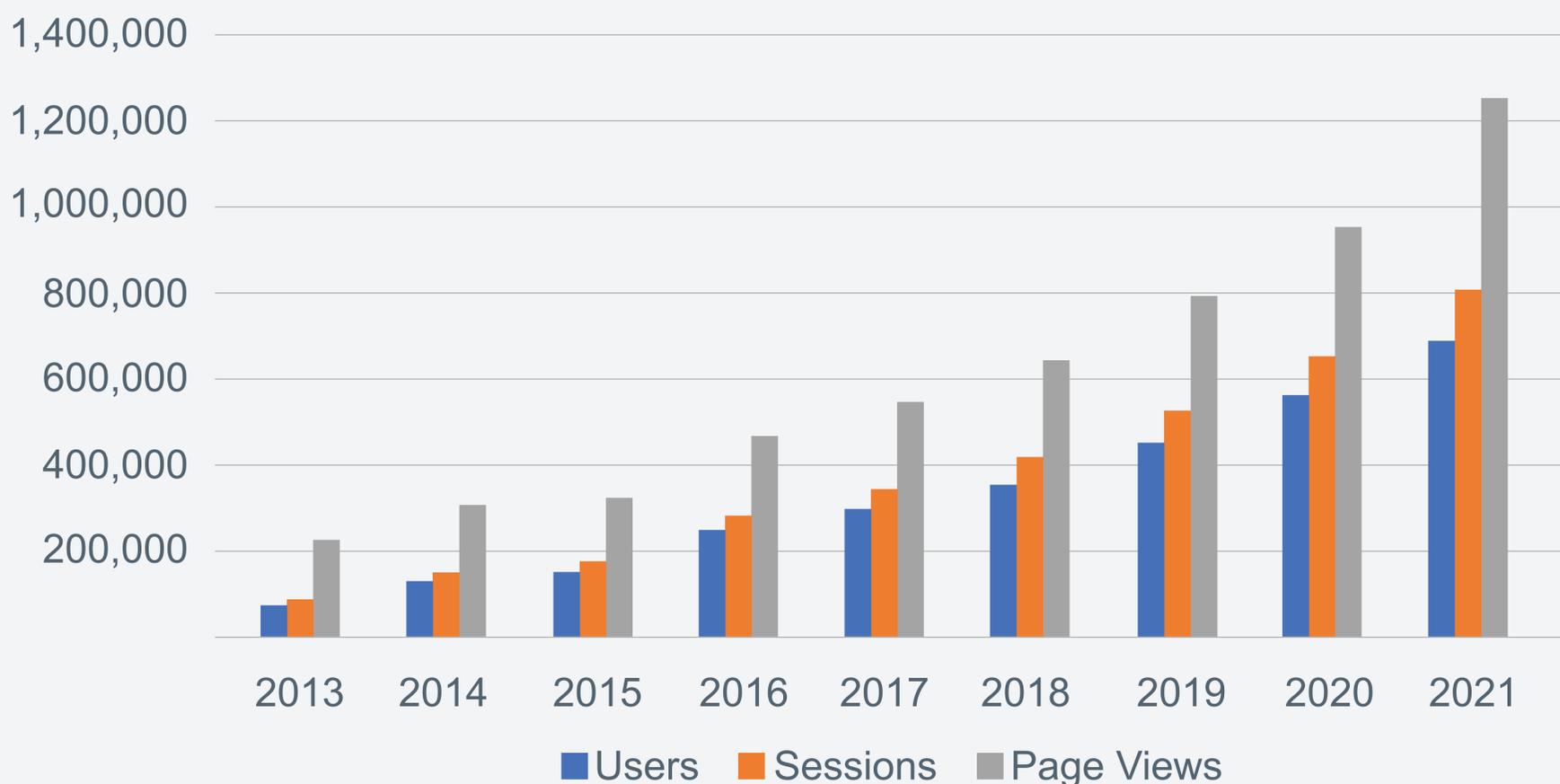


The Solution Center Disaster Resistance tool was developed with input from industry, federal agencies, and the national labs:

- Building Science Corporation
- Cold Climate Housing Research Center
- Florida Solar Energy Center
- Home Innovation Research Labs
- IBACOS
- Newport Partners
- Steven Winter Associates
- University of Minnesota
- University of Nebraska
- LSU Ag Center Research Extension
- Federal Energy Management Agency (FEMA)
- Insurance Industry for Building and Home Safety (IBHS) Fortified Home program
- Pacific Northwest National Laboratory
- Oak Ridge National Laboratory
- National Renewable Energy Laboratory
- Lawrence Berkeley National Laboratory
- and others.

Visit DOE's Building America Solution Center for building science-based construction guidance.

The Number of Solution Center Users has Grown Every Year



Home Page

Disaster Resistance Tool

Guides are Presented by Disaster Type

Click through disaster types and parts of the house to get to guides providing how-to recommendations for specific measures to make homes more disaster resistant.

Walls

- Moisture-, Impact-, Fire-, and Pest-Resistant Exterior Siding**
Guide describing how to select the siding materials best suited to withstand hazards the home is likely to face within its lifetime.
- Fire-Resistant Wall Assemblies**
Guide describing wall assemblies and materials that are resistant to destruction from wildfires.

Windows

- Windows Have Impact-Rated Glass, Fire-Resistant Glass, or Protective Coverings**
Guide describing how to strengthen or protect windows against wind and wind-borne debris during high-wind events including hurricanes and tornados.

Doors

- Exterior Doors Are Insulated, Impact Rated, and Fire Rated**
Guide describing the use of doors that are impact rated or have protective coverings in hurricane and high wind zones.

A Sample Guide

Windows Have Impact-Rated Glass, Fire-Resistant Glass, or Protective Coverings

Scope	Description	Success	Climate	Training	Compliance	Retrofit	More
<p>Scope</p> <p>Protect exterior glazed openings (windows and glass doors) against wind pressures, windborne debris, hail, and heat during hurricanes, wildfires, and severe storms by installing impact-resistant glazing or by installing hurricane shutters or storm panels to protect the glazing. In wildfire-prone areas, use dual-pane, tempered-glass windows.</p> <p>In areas susceptible to wind-borne debris,</p> <ul style="list-style-type: none"> Determine if glazed opening protection is required. Determine the most suitable type of opening protection. <ul style="list-style-type: none"> impact-resistant glazing (the only option for skylights) hurricane shutters storm panels shutters and panels qualified opening protection systems must pass ASTM E1996 and E1886 impact tests for large missile "D." Properly install products in accordance with manufacturer installation instructions and all applicable building codes including any specific product approval requirements. 	<p>Windows Protected by Hurricane Shutters.</p>						

Guides provide detailed installation guidance organized into nine tabs:

Scope	Description	Success	Climate	Training
<p>Scope Tab</p> <ul style="list-style-type: none"> Specifies primary construction techniques. Highlights installation strategies. Can be used as a scope of work for construction contracts. 	<p>Description Tab</p> <ul style="list-style-type: none"> Provides building science background, research, pros and cons, and options. Details step-by-step installation instructions. 	<p>Success Tab</p> <ul style="list-style-type: none"> Building America library Reports & articles Research studies Standards Case studies 	<p>Climate Tab</p> <ul style="list-style-type: none"> Climate-specific information Region-specific natural disaster guidance. 	<p>Training Tab</p> <ul style="list-style-type: none"> Right and wrong photos Presentations Videos More than 4,000 Illustrations
<p>Compliance Tab</p> <ul style="list-style-type: none"> Applicable codes & standards IECC and IRC IBHS Fortified Home ENERGY STAR DOE ZERH Home EPA Indoor airPLUS EPA WaterSense 	<p>Retrofit</p>	<p>More Tab</p>	<p>Sales Tab</p> <ul style="list-style-type: none"> Marketing language for sales staff Explains the benefits of this measure to consumers 	<p>Free, Downloadable, Fully Searchable Training Resources</p> <ul style="list-style-type: none"> 4,300 photos & drawings 550 videos 670 case studies 30 code briefs 170 CAD files 200 presentations 2,170 references