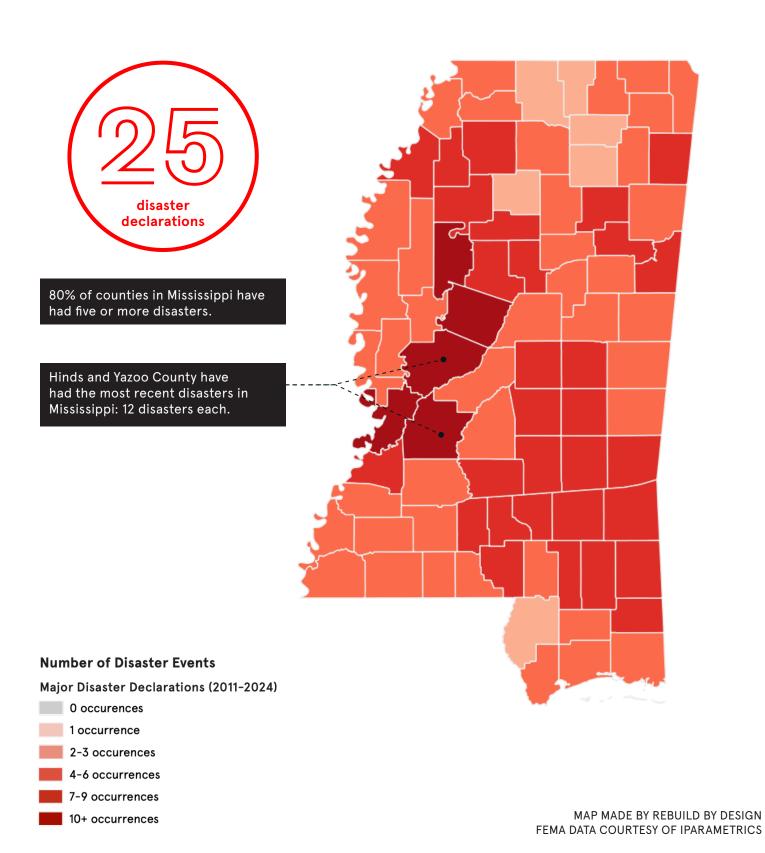




MISSISSIPPI STATIS	MISSISSIPPI STATISTICS SUMMARY (2011 - 2024)										
25	CLIMATE DISASTER DECLARATIONS										
\$804.1 MILLION	FEMA + HUD POST-DISASTER FUNDING										
3.0 MILLION PEOPLE	POPULATION TOTAL										
\$272	PER CAPITA SPENDING ON CLIMATE DISASTERS										
HINDS & YAZOO (12 DISASTERS)	COUNTY WITH THE HIGHEST DISASTER OCCURRENCES										
66	COUNTIES HAVE HAD FIVE OR MORE DISASTERS										
2 MILLION PEOPLE	LIVE IN AREAS WITH VERY HIGH SOCIAL VULNERABILITY (SVI > 0.75)										
14.6 HOURS	TOTAL OUTAGE DURATION (HOURS PER CUSTOMER PER YEAR)										
C- (2024)	ASCE INFRASTRUCTURE REPORT CARD GRADE										
14	SUPERFUND SITES										
\$2.4 BILLION	CLIMATE INFRASTRUCTURE SUPPORTED THROUGH SMALL INSURANCE SURCHARGE										
6TH HIGHEST	RANK IN TOP 10 STATES WITH HIGHEST NUMBER OF DISASTER DECLARATIONS										

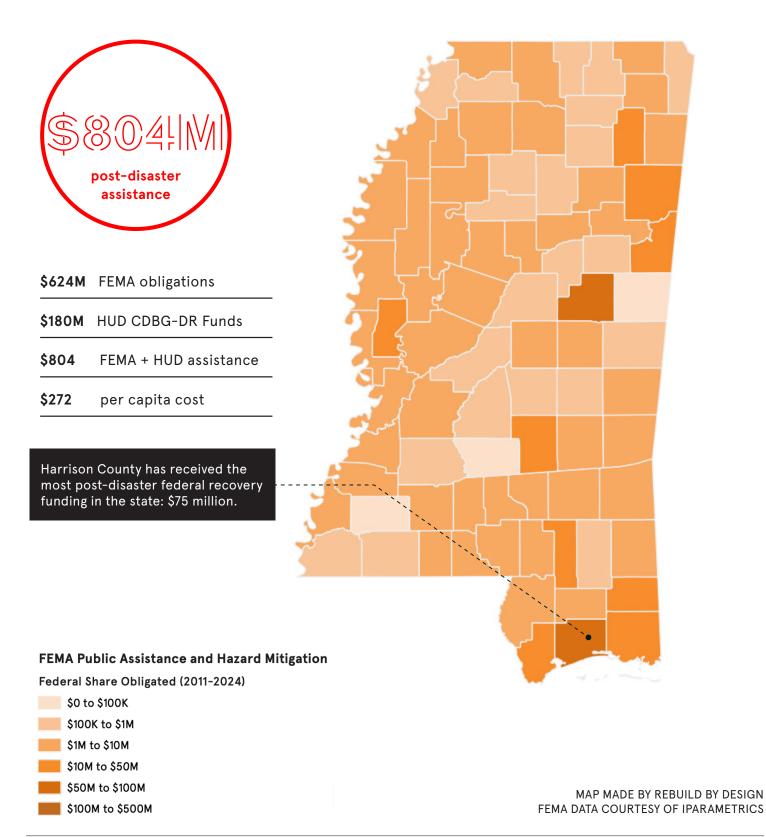
DISASTER OCCURRENCES 2011–2024

FEDERALLY DECLARED CLIMATE DISASTERS BY COUNTY



FEDERAL ASSISTANCE 2011-2024

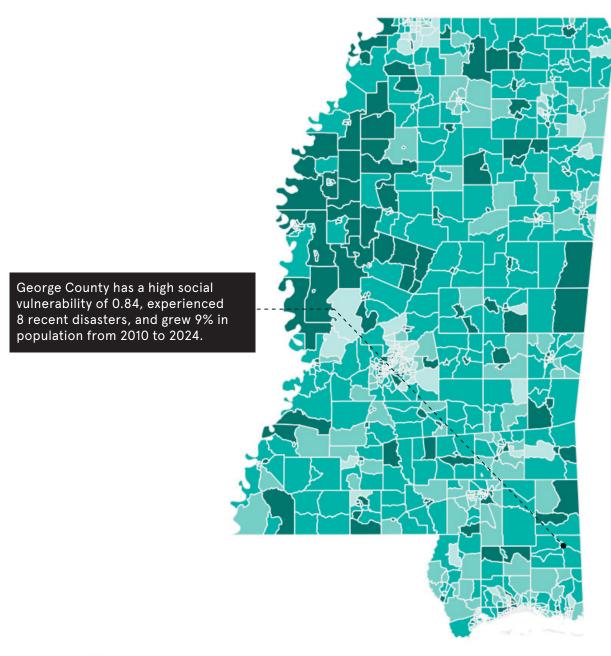
POST-DISASTER PUBLIC ASSISTANCE AND HAZARD MITIGATION FUNDS OBLIGATED BY COUNTY FOR CLIMATE DISASTERS



145

SOCIAL VULNERABILITY INDEX 2022

AREAS OF GREATEST SOCIAL VULNERABILITY



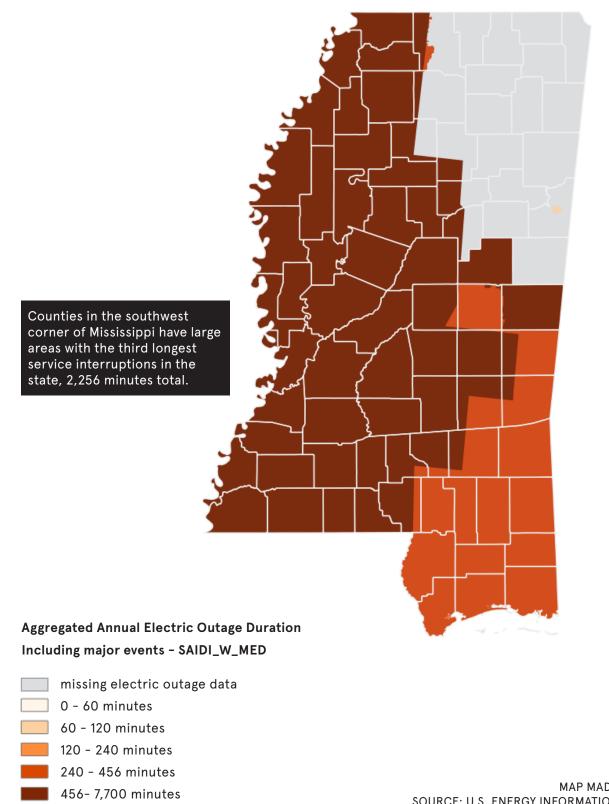
Social Vulnerability Index

CDC (2022) No Value 0.0 - 0.2 0.2 - 0.4 0.4 - 0.6 0.6 - 0.8 0.8 - 1.0

MAP MADE BY REBUILD BY DESIGN DATA SOURCE: CDC/ATSDR 2022 SVI

ENERGY RELIABILITY 2023

COUNTIES AT GREATEST RISK OF POWER OUTAGES



MAP MADE BY REBUILD BY DESIGN SOURCE: U.S. ENERGY INFORMATION ADMINISTRATION 2023

		Tota	al		2011	2012	2013	2014	2015		2016	20	017			2019				2020				2021		2023		2024
TOTAL: 25 DISASTERS				1972: SEVERE S			4101: SEVERE STORM	MS, 4175: SEVERE STORM	MS	48: SEVERE STOR	RMS,	4295: SEVERE STORMS, 4314: SEVER	ERE STORMS,	4445, CEVEDE CTODING	4429: SEVER	## 4450: SEVERE STORMS,	4470: SEVERE STORM,	4478: SEVERE STORMS	4536: SEVERE STORMS,	4538: SEVERE STORMS,	4551: SEVERE STORMS,		AFOO. CEVEDE MINTER			4697: SEVERE STORMS, 4727: SEV	EVERE STORMS	4790: SEVERE STORMS, STRAIGHT-LINE WINDS.
FEMA PA + HM: \$624.0 M HUD CDBG-DR: \$180.0 M				ORNADOES, STRA WINDS, AND ASS	SOCIATED 1963: FLOODING	4081: HURRICAN	NE ISAAC TORNADOES, AND FLOODING	TORNADOES, AND FLOODING	4205: SEVERE STORMS TOF AND TORNADOES	LINE WINDS, AND	D FLOODING	LINE WINDS, AND LINE WIN		4350: HURRICANE NATE 4415: SEVERE STORMS, FLOODING, AND TORNADO	STRAIGHT-LI TORNADOES. AI	ND FLOODING LINE WINDS, AND	STRAIGHT-LINE WINDS, AND FLOODING	LINE WINDS, AND	TORNADOES, STRAIGHT-LINE WINDS, AND FLOODING	FLOODING, AND MUDSLIDES	LINE WINDS, AND	4576: HURRICANE ZETA	4598: SEVERE WINTER STORMS	4626: HURRICAN	NE IDA ST	TRAIGHT-LINE WINDS, AND STRAIGHT TORNADOES AND TO	HT-LINE WINDS FORNADOES.	TORNADOES, AND
FEMA + HUD ASSISTANCE	: \$804.1 M			FLOODIN	NG		T EOODING	TEODING		FLOODING		FLOODING FLOOI	ODING		TORRIADOLO, AI	FLOODING	ANDTEOGRAG	FLOODING	WINDO, AND I LOODING	Modelbes	FLOODING					TOTAL AND TO	TORRADOLO.	FLOODING
GEOID COUNTY NAME	# OF DISASTERS FEMA TOTAL	PA Obligations	HM Obligations P	A Obligations C	HM PA HM Obligations Obligations Obligati	M PA Obligations	HM Obligations PA Obligations Obligat	M PA Obligations Obligations	M PA HM tions Obligations Obligations Ob	PA HI	IM PA Obligations Obligations	PA Obligations Obligations PA Obligations	ns HM Obligations	A Obligations	PA Obligations	HM PA HM Obligations Obligations Obligations	PA Obligations HM Obligations	PA HM Obligations Obligation	PA Obligations Obligations	PA HM Obligations Obligations	PA HM Obligations Obligations	PA Obligations Obligation	PA Obligations Obligations	ons PA Obligations Ob	HM Obligations	PA Obligations HM PA Obligations Obligation	HM ons Obligation	PA HM ons Obligations Obligations
28000 28000: Statewide	\$93,837,961.82	\$89,419,947.72	\$4,418,014.10	\$1,395,860.81	\$157,841.00 \$3,713,493.14 \$83,75	758.00 \$10,681,017.94	\$40,536.00 \$847,874.67 \$12,36	\$63.00 \$6,030,029.39 \$680,5	12.00 \$1,384,641.58 \$0.00 \$2,0	048,938.25	\$0.00 \$515,448.06 \$127,070.00	\$1,749,615.59 \$40,632.43 \$2,711,273.16	16 \$39,411.63	\$1,076,375.34 \$30,023.37 \$481,333.40 \$104,416.02	\$1,324,238.22	\$1,541,656.54 \$336,399.81 \$0.00	\$828,994.00 \$0.00	\$1,071,149.23 \$0.0	00 \$10,210,103.60 \$282,626.7	8 \$843,948.22 \$168,180.73 \$	\$1,109,702.63 \$84,773.0	\$7,465,762.44 \$365,204.9	99 \$4,682,822.72 \$147,890	0.03 \$11,393,044.58 \$3	\$368,509.00 \$	\$15,858,555.65 \$142,609.51 \$1,659,325	.0.20	.00
28001 28001: Adams County 28003 28003: Alcorn County	6 \$3,273,991.03 4 \$6,175,728.53	\$3,199,022.03 \$6,175,728.53	\$74,969.00 \$0.00	\$141,975.14	\$393,398.81 \$	\$0.00 \$112,848.66	\$74,969.00					\$106,367.81	81 \$0.00		\$330,225.93	\$0.00	\$5,703,527.46 \$0.00						\$2,586,406.75	\$0.00 \$0.00	\$0.00 \$0.00	\$0	\$0.00 \$0.	.00
28005 28005: Amite County	4 \$152,052.96	\$152,052.96	\$0.00			\$152,052.96															\$0.00 \$0.0	00		\$0.00	\$0.00		\$0.00 \$0.	
28007 28007: Attala County 28009 28009: Benton County	6 \$189,317.09 3 \$779,510.58	\$189,317.09 \$779,510,58	\$0.00 \$0.00	\$0.00 \$195 582 84	\$0.00	\$0.00	\$0.00		\$5	583,927.74	\$0.00									\$96,878.68 \$0.00			\$92,438.41	\$0.00 \$0.00	\$0.00	\$0	\$0.00 \$0.	.00
28011 28011: Bolivar County	5 \$1,241,489.64	\$1,172,036.64	\$69,453.00	ψ130,302.0+	\$146,022.22	\$0.00			Ψ	500,327.74	\$676,703.09 \$23,733.00							\$313,651.69 \$0.0	90 \$35,659.64 \$45,720.0	0				\$0.00	\$0.00			
28013 28013: Calhoun County	5 \$445,134.34	\$359,634.34	\$85,500.00	\$82,861.14	\$0.00	#0.00	#22 222 00						\$0.00 \$0.00		\$143,830.36				\$32,708.27 \$85,500.0					\$0.00	\$0.00	6042 046 20 60 00		
28015 28015: Carroll County 28017 28017: Chickasaw County	8 \$2,495,331.66 8 \$3,023,927.14	\$2,463,009.66 \$2,977,535.30	\$32,322.00 \$46,391.84	\$60,022.85 \$1,509,509.94	\$0.00	\$0.00	\$32,322.00		\$1	110,705.86	\$0.00	\$42,939.56 \$89,965.86			\$514,543.06 \$453,468.88		\$184,047.31 \$0.00	\$451,601.17 \$0.0	\$34,294.11 \$0.0 00 \$178,236.28 \$0.0	0 \$998,293.78 \$0.00 0				\$0.00 \$0.00	\$0.00 \$0.00	\$812,916.30 \$0.00		
28019 28019: Choctaw County	6 \$577,114.39	\$577,114.39	\$0.00	\$397,858.89	\$0.00					,					, ,		\$5,413.26 \$0.00	\$157,886.27 \$0.0	\$0.00 \$0.00	0			\$15,955.97	0.00 \$0.00	\$0.00			
28021 28021: Claiborne County 28023 28023: Clarke County	9 \$4,433,867.19	\$4,433,867.19 \$1,416,431,67	\$0.00	\$99.664.15	\$46,303.45 \$	\$0.00 \$170,094.92 \$221,129.33	\$0.00 \$0.00				\$85,935.48 \$0.00 \$180,868.89 \$0.00	\$1,370,156.46	\$0.00	\$712.494.01 \$0.00		\$138.650.12 \$0.00			\$63.625.17 \$33.210.0	\$1,633,048.30 \$0.00	\$66,236.57 \$0.0	00	\$1,047,265.37	\$14,826.64 \$0.00	\$0.00 \$0.00	\$0	\$0.00 \$0.	.00
28025 28025: Clay County	9 \$1,184,623.45	\$1,028,487.49	\$156,135.96	\$351,387.62	\$0.00	ΨΖΖ1,120.00	ψυ.υυ		\$	\$90,840.97	\$0.00			ψ112,434.01	\$58,011.11	\$0.00 \$30,002.01 \$0.00		\$129,617.30 \$0.0	, , , , , , , , , , , , , , , , , , , ,	0 \$182,047.01 \$0.00			\$75,684.07	0.00 \$0.00 \$1	*****			
28027 28027: Coahoma County	7 \$2,370,546.20	\$2,288,204.02	\$82,342.18	\$25,865.08	\$0.00 \$120,375.14 \$	\$0.00	00.00		\$1	187,074.46	\$0.00 \$1,340,728.14 \$0.00				\$190,548.61	\$0.00			\$423,612.59 \$82,342.1				#00.000.00 #0	\$0.00	\$0.00	044 500	10.00 Ma	00
28029 28029: Copiah County 28031 28031: Covington County	5 \$297,512.53 9 \$8,281,063.44	\$297,512.53 \$8,281,063.44	\$0.00			\$108,725.17 \$117,303.86	\$0.00 \$0.00				\$288,679.95 \$0.00			\$386,534.04 \$0.00			\$1,001,544.74 \$0.00		\$6,045,634.55 \$0.0	\$146,660.70 \$0.00 0	\$376,887.77 \$0.0	00	\$30,626.66 \$0 \$30,238.97 \$0	0.00 \$0.00 0.00 \$10,467.58	\$0.00 \$0.00		0.00 \$0. 1.98 \$0.	
28033 28033: DeSoto County	\$3,378,333.63	\$3,378,333.63	\$0.00	\$115,570.65	\$0.00 \$0.00 \$	\$0.00			\$1	190,252.74								\$3,072,510.24 \$0.0						\$0.00	\$0.00			
28035 28035: Forrest County 28037 28037: Franklin County	9 \$28,301,012.28 4 \$44.713.25	\$28,301,012.28 \$44.713.25	\$0.00 \$0.00			\$148,262.90 \$34,271.67	\$0.00 \$17,025,647.56 \$ \$0.00	\$0.00			\$734,477.54 \$0.00	\$8,171,648.15 \$0.00		\$205,910.22 \$0.00 \$584,163.68 \$0.00					\$33,848.52 \$0.0	0		\$878,154.85 \$0.0	\$5.941.58 \$0	\$518,898.86 0.00 \$4.500.00	\$0.00 \$0.00	0.2	50.00 \$0.	.00
28039 28039: George County	8 \$23,515,940.91	\$23,478,440.91	\$37,500.00	\$168,954.85	\$37,500.00	\$908,110.32	\$0.00				\$0.00 \$0.00			\$1,178,984.10 \$0.00							\$370,044.89 \$0.0	00 \$19,863,691.81 \$0.0	00	\$868,715.34	\$0.00	\$119,939		
28041 28041: Greene County	9 \$3,567,817.29	\$3,464,341.29	4.00, 0.00	\$669,660.45	*****	\$154,041.48	,,,,,	\$0.00			\$288,332.57 \$0.00			\$32,389.68 \$0.00 \$0.00	¢242.005.75	¢154_402_40			#26.000.40	0 00 00 000 000		\$2,319,917.11 \$0.0	00 00 000 7000	\$0.00	\$0.00	\$0	\$0.00 \$0.	00
28043 28043: Grenada County 28045 28045: Hancock County	7 \$956,407.95 5 \$29,644,570.25	\$379,548.93 \$29,208,713.25		\$0.00	\$0.00	\$0.00 \$3,157,985.32	\$0.00 \$435,857.00							\$696,749.23 \$0.00	\$342,625.75	\$154,423.40			\$36,923.18 \$62,802.0	0 \$0.00 \$36,096.67		\$18,928,268.02 \$0.0	\$0.00 \$299,797	7.20 \$0.00 \$ \$6,425,710.68	\$23,739.75 \$0.00			\$0.00 \$0.00
28047 28047: Harrison County	4 \$75,145,483.15	\$71,363,102.51	\$3,782,380.64			\$8,038,283.49 \$3	33,561,736.00							\$1,975,101.26 \$79,510.24								\$56,973,628.64 \$141,134.4	40	\$4,376,089.12	\$0.00			
28049 28049: Hinds County 28051 28051: Holmes County	12 \$8,340,940.82 10 \$7.075.347.49	\$6,408,955.82 \$7,075,347.49	\$1,931,985.00 \$0.00	\$1,014,811.28 \$193.879.53	\$0.00 \$365,438.75 \$ \$0.00	\$0.00 \$575,064.02 \$ ² \$9,000.00		\$0.00			\$1,846,328.52 \$155,121.50 \$0.00	\$6,150,510.21		\$59,758.06 \$0.00	\$61,443.15	\$0.00 \$230,442.25 \$0.00			\$17,837.66 \$0.0	\$801,788.99 \$0.00 0 \$318,556.34 \$0.00			\$602,789.07 \$6 \$0.00 \$6	0.00 \$0.00 0.00 \$0.00	\$0.00	\$1,061,846.76 \$0.00	50.00 \$0.	\$0.00 \$0.00
28053 28053: Humphreys County		1 1 1		Ţ 100,010.00	\$131,816.18	\$0.00	40.00				ψ0.00	ψ0, 100,010.21	φυ.συ		\$1,051,617.82	\$0.00			ψ0.0	ψυ.σο			ψυ.ου ψι	\$0.00	\$0.00		60.00 \$0.	
28055 28055: Issaquena County	. , ,		\$0.00	044 405 00		\$0.00		\$057.045.40	MO. 00	205 205 24	\$14,190.34 \$0.00				\$3,188,718.68		#0.00 #0.00			\$30,703.20 \$0.00				\$0.00	\$0.00	M400 070 77 M0 00 M0	10.00 (0.00	00
28057 28057: Itawamba County 28059 28059: Jackson County		\$1,600,207.27 \$28,411,367.07	\$0.00 \$0.00	\$41,165.99	\$0.00	\$8,661,285.06	\$0.00	\$857,615.13	\$0.00	285,865.34	\$0.00			\$5,454,326.22 \$0.00	\$98,334.45	\$0.00 \$153,555.59 \$0.00	\$0.00 \$0.00					\$11,979,555.33 \$0.0	00	\$0.00 \$1,149,077.51	\$0.00 \$0.00		\$0.00 \$0. 2.95 \$0.	
28061 28061: Jasper County	8 \$3,058,116.87	\$3,058,116.87	\$0.00	\$31,570.47	\$0.00	\$1,303.73	\$0.00							\$268,100.74 \$0.00			\$0.00 \$0.00		\$2,182,293.39 \$0.0	0				0.00 \$0.00	\$0.00	\$527,621	1.52 \$0.	.00
28063 28063: Jefferson County 28065 28065: Jefferson Davis		\$2,013,937.93 \$5,181,122.38	\$0.00 \$31.841.25		\$163,518.85	\$0.00 \$29,210.22 \$9,370.42		\$0.00			\$43,125.77 \$0.00	\$213,710.89	89 \$0.00				\$51,542.83 \$31,841.25		\$3,369,311.52 \$0.0	0 \$	\$1,686,887.49 \$0.0)n	\$1,607,497.97 \$0 \$9,384.61 \$0	0.00 \$0.00 0.00 \$0.00	\$0.00 \$0.00		\$0.00 \$0. 9.74 \$0.	
28067 28067: Jones County			\$0.00			\$39,138.68		\$501,103.84	\$0.00		\$378,662.46 \$0.00			\$904,220.55 \$0.00			ψο 1,042.00 ψο 1,041.20		\$3,559,851.66 \$0.0		\$815,246.17 \$0.0		φο,οο-ιοτ	\$11,765.14	\$0.00		60.58 \$0.	
28069 28069: Kemper County	5 \$316,667.98	\$285,252.98	. ,	\$120,806.75	\$0.00	\$0.00	\$31,415.00								CAO 404 44	\$12,249.81 \$0.00			\$200 700 OF \$60 O					0.00 \$0.00	\$0.00			
28071 28071: Lafayette County 28073 28073: Lamar County	5 \$2,958,394.37 5 \$2,301,210.12	\$2,820,338.12 \$2,134,161.80	, , , , , , , , , , , , , , , , , , , ,	\$1,581,544.35	\$112,425.00	\$403,217.89	\$0.00 \$1,007,503.91 \$	\$0.00			\$98,210.26 \$167,048.32	\$625,229.74 \$0.00			\$649,134.14	\$25,631.25			\$323,796.95 \$0.0	0			\$265,862.68	\$0.00 \$0.00	\$0.00 \$0.00			
28075 28075: Lauderdale County	, , , , , , , , , , , , , , , , , , , ,		\$16,841.00	\$756,105.65	\$16,841.00	\$27,782.09						\$0.00 \$0.00				\$105,269.91 \$0.00							\$1,695,860.91	0.00 \$0.00	\$0.00			
28077 28077: Lawrence County 28079 28079: Leake County	7 \$1,973,352.23 9 \$4,189,782.83	\$1,973,352.23 \$4,189,782.83	\$0.00 \$0.00	\$255,418.69	\$0.00	\$94,023.19 \$0.00	\$0.00 \$0.00	\$51,143.19	\$0.00		\$61,424.08 \$0.00 \$171,683.63 \$0.00						\$638,096.96 \$0.00		\$645,254.65 \$0.0 \$424,077.79 \$0.0		\$1,172,650.31 \$0.0	00	\$0.00 \$0 \$1,835,544.29 \$0	0.00 \$0.00 0.00 \$0.00	\$0.00 \$0.00		\$0.00 \$0. 8.28 \$0.	
28081 28081: Lee County			\$103,225.00	\$336,643.72	\$0.00	φο.σσ	ψοίου	\$7,515,115.19 \$103,2			ψ11 1,000.00				\$1,038,046.49	\$0.00	\$3,463,675.42 \$0.00		ψ121,011110 ψ0.0				ψ1,000,011.20 ψ0	\$0.00	\$0.00	φοτο, στο	ψ	
28083 28083: Leflore County	. , ,	\$5,076,908.76	\$0.00	\$194,686.63	\$0.00 \$9,356.11 \$	\$0.00	CO. OO				\$219,072.57 \$0.00 \$60,455.95 \$0.00	\$265,477.54	\$0.00		\$556,164.71	\$0.00		\$1,392,372.81 \$0.0	00 \$604,022.56 \$0.0	0 \$1,236,987.61 \$0.00			# C0 200 00 #	\$0.00		\$598,768.22 \$0.00		
28085 28085: Lincoln County 28087 28087: Lowndes County	\$1,210,253.61 8 \$15,406,461.60	\$1,210,253.61 \$15,218,048.54	\$188,413.06	\$1,339,501.92	\$0.00	\$667,908.54	\$0.00	\$1,445,269.72 \$42,74	44.00		\$60,455.95 \$0.00				\$11,373,144.12	\$52,346.26 \$69,153.11 \$0.00	\$93,529.25 \$0.00		\$338,521.46 \$0.0	0			\$68,396.80 \$6 \$558,928.96 \$93,322	0.00 \$413,492.32 2.80 \$0.00	\$0.00 \$0.00			
28089 28089: Madison County	5 \$591,870.26	\$591,870.26	\$0.00			\$0.00		\$51,757.54																\$0.00	\$0.00	\$540,112	2.72 \$0.	00 \$0.00 \$0.00
28091 28091: Marion County 28093 28093: Marshall County	8 \$2,997,487.59 3 \$1,586,525.89	\$2,997,487.59 \$1,586,525,89	\$0.00 \$0.00	\$309.795.20	\$0.00	\$289,532.50	\$0.00 \$43,721.45 \$	\$0.00	\$1,600,666.89 \$0.00 \$1.2	276,730.69	\$162,319.02 \$0.00 \$0.00			\$0.00			\$0.00 \$0.00			\$901,247.73 \$0.00				\$0.00 \$0.00	\$0.00 \$0.00			
28095 28095: Monroe County		\$30,714,797.14	* * * * * *	,	****				\$2	227,603.79					\$0.00	\$0.00 \$2,553,619.75 \$0.00								\$0.00		\$22,722,034.85 \$142,498.50		
28097 Z809/: Montgomery	8 \$4,307,290.67 7 \$1.404.874.76	\$4,307,290.67 \$1,404.874.76	75.55	\$188,505.58 \$255,706,77	\$0.00	\$0.00 \$4,165.26		\$0.00	\$0.00			\$2,443,464.30	30 \$0.00		\$118,842.84	\$0.00	\$9,700.46 \$0.00		\$0.00 \$0.0	0			\$752,682.92	\$0.00 \$0.00	\$0.00 \$0.00	\$1,556,477.95 \$0.00 \$382.619	0.25 \$0	.00 \$0.00 \$0.00
28099 28099: Neshoba County 28101 28101: Newton County	8 \$566,586.96	\$566,586.96	*****	\$140,898.80	\$0.00	\$149,950.98	\$0.00 \$0.00	\$125,133.06	\$0.00					\$5,826.54 \$0.00			\$0.00 \$0.00							0.00 \$0.00	\$0.00	7-1,1-1	9.35 \$0. 60.00 \$0.	
28103 28103: Noxubee County	6 \$84,094.84	\$84,094.84	\$0.00	\$4,822.10	\$0.00	\$0.00	\$0.00							\$79,272.74 \$0.00					\$0.00 \$0.0	0			\$0.00		\$0.00			
28105 28105: Oktibbeha County 28107 28107: Panola County	5 \$877,227.31 8 \$3,147,505.31	\$794,121.31 \$3,147,505.31	\$83,106.00 \$0.00	\$319,231.04	\$0.00				\$1	108.657.27	\$0.00 \$111,110.38 \$0.00				\$88,829.47	\$331,678.87 \$0.00		\$254,023.44 \$83,106.0 \$533.730.47 \$0.0	00 \$937,767.01 \$0.0	0				\$0.00 \$0.00	\$0.00 \$0.00	\$151,337 \$1,048,179.67 \$0.00	\$7.17 \$0.	.00
28109 28109: Pearl River County		\$1,958,890.38		, ,	, , , , ,	\$899,874.79				,	\$61,821.17 \$0.00				, , .			,,,,,,,						\$997,194.42	\$0.00			
28111 28111: Perry County 28113 28113: Pike County	8 \$312,338.18 4 \$7,509,763.05	\$312,338.18 \$3,691,243.05	·			\$16,926.09 \$346,992.31		\$0.00			\$29,222.02 \$0.00	\$20,505.36 \$0.00		\$133,926.71 \$0.00						•	\$1,751,288.64 \$0.0	\$111,758.00 \$0.0		\$0.00 0.00 \$1,589,302.79 \$3,8	\$0.00	\$0	\$0.00 \$0.	.00
28115 28115: Pontotoc County	3 \$281,904.30	\$281,904.30	\$0.00			φοτο, σεζ. σ Ι	φο.οο								\$281,904.30	\$0.00	\$0.00 \$0.00			4	ψυ.υ		ψο,σσσ.σ1 φ(\$0.00				
28117 28117: Prentiss County	6 \$1,532,697.42 \$1,340,478.40	\$1,532,697.42	\$0.00	\$36,659.59	\$0.00					\$78,655.29					\$474,587.09		\$637,591.50 \$0.00			E			#20.005.47	\$0.00	\$0.00			
28119 28119: Quitman County 28121 28121: Rankin County	\$ \$1,340,178.10 5 \$949,653.79	\$1,257,273.95 \$907,189.79		\$78,792.02	φ24,201.00	\$0.00	\$0.00	\$512,235.95 \$42,4		157,989.32	\$0.00 \$578,084.12 \$0.00				\$270,670.09	\$0.00		\$13,914.3U \$0.0	90 \$128,928.63 \$58,647.1				\$28,895.47 \$0 \$394,953.84 \$0		\$0.00 \$0.00	\$0	50.00 \$0.	00
28123 28123: Scott County	7 \$198,256.94	\$110,779.94	\$87,477.00	\$12,926.64		\$10,071.51											\$0.00 \$0.00						\$87,781.79	0.00 \$0.00	\$0.00	\$0		00 \$0.00 \$0.00
28125 28125: Sharkey County 28127 28127: Simpson County	5 \$24,455,295.98 7 \$59,505.36	\$24,455,295.98 \$59,505.36	\$0.00 \$0.00		\$43,566.05	\$0.00	\$0.00	\$0.00	\$0.00						\$377,716.98	\$0.00	\$6,621.40 \$0.00			\$30,645.91 \$0.00	\$0.00 \$0.0	00	\$52,883.96	\$0.00 0.00 \$0.00	\$0.00 \$2 \$0.00	\$24,003,367.04 \$0.00	50.00 \$0.	.00
28129 28129: Smith County				\$187,817.42	\$0.00	\$445,417.55		φυ.συ									\$1,058,304.70 \$0.00		\$4,932,116.56 \$55,775.7	1 \$	\$1,297,832.82 \$0.0			0.00 \$990,619.73	\$0.00		2.06 \$0.	
28131 28131: Stone County		\$1,647,466.79		# 0.00	CO. OO	\$153,385.82	\$0.00				040.704.04			\$6,419.03 \$0.00	#2 500 007 07	0.00		#0.00	00 00 000	0		\$1,468,385.78 \$0.0	00	\$19,276.16	\$0.00			
28133 28133: Sunflower County 28135: Ialianatonie	6 \$2,891,090.49 7 \$1,717,282.11	\$2,618,752.29 \$1,562,926.61	, , , , , , , , , , , , , , , , , , , ,	\$0.00	\$0.00				\$1	180,247.72	\$49,784.34 \$0.00 \$0.00 \$373,265.08 \$44,068.00				\$2,568,967.95 \$684,515.18	\$110,287.50		\$0.00 \$0.0 \$177,154.16 \$0.0	\$0.00 \$0.00 \$208,111.5 \$00 \$26,401.57 \$0.0				\$121,342.90 \$0	\$0.00 \$0.00	\$64,226.70			
28137 28137: Tate County	4 \$263,355.41	\$263,355.41	\$0.00	\$47,418.84	\$0.00						\$129,698.98 \$0.00								\$86,237.59 \$0.0					\$0.00	\$0.00			
28139 28139: Tippah County 28141 28141: Tishomingo County	4 \$372,239.76 4 \$838,749.08	\$372,239.76 \$798.070.58	\$0.00 \$40.678.50	\$68,539.75 \$374.760.51	\$0.00 \$0.00				\$1	171,664.44	\$0.00				\$289,506,53	\$40,678.50	\$132,035.57 \$0.00	\$133,803.54 \$0.0	00					\$0.00 \$0.00	\$0.00 \$0.00			
28143 28143: Tunica County	5 \$458,397.35	\$458,397.35	\$0.00	\$43,849.70	\$0.00 \$262,519.15 \$	\$0.00					\$111,000.89 \$0.00							ψο.(\$41,027.61 \$0.0	0				\$0.00	\$0.00			
28145 28145: Union County	3 \$490,379.33 \$4,437,744.60	\$490,379.33	\$0.00	\$40,165.37	\$0.00	¢440.000.40	CO 00				\$147 422 12 \$0.00				\$450,213.96	\$0.00			\$000 040 00 AC	0			CONTRACT	\$0.00	\$0.00			
28147 28147: Walthall County 28149 28149: Warren County	5 \$1,427,714.69 10 \$4,717,455.31	\$1,427,714.69 \$4,663,458.31	\$0.00 \$53,997.00		\$721,838.82 \$53.99	\$146,309.42 997.00 \$63,719.43		\$0.00	\$0.00		\$147,422.13 \$0.00				\$954,488.94	\$0.00 \$244,544.05 \$0.00			\$928,248.20 \$0.0	\$1,761,864.12 \$0.00			\$80,106.93 \$0 \$696,271.27 \$0	0.00 \$125,628.01 0.00 \$0.00	\$0.00 \$0.00	\$55,108.67 \$0.00 \$165,623	3.01 \$0.	00
28151 28151: Washington County	6 \$2,343,424.12	\$1,525,013.12	\$818,411.00		\$734,406.71 \$818,41	11.00					\$485,135.32 \$0.00				\$236,036.66			\$69,434.43 \$0.0						\$0.00	\$0.00	\$0.00 \$0.00		
28153 28153: Wayne County 28155 28155: Webster County	9 \$6,888,225.10 6 \$5,856,284.17	\$6,418,026.10 \$5,856,284.17	¥ 5,	\$5,296,181.61	\$0.00	\$155,956.52	\$0.00 \$575,699.72 \$470,19	99.00 \$846,788.01	\$0.00		\$930,445.88 \$0.00	\$24 125 24	24 \$0.00	\$2,897,825.49 \$0.00	\$431,104.01	\$0.00			\$0.00 \$0.0		\$71,346.99 \$0.0	\$696,001.84 \$0.0		\$225,606.91 0.00 \$0.00	\$0.00 \$0.00	\$18,354	\$4.74 \$0.	.00
28157 28157: Wilkinson County	5 \$743,626.61	\$743,626.61	\$0.00	, 0, 200, 101.01		\$0.00 \$195,912.87	\$0.00					ψυτ, 1ου. 24	. φσ.σσ		¥ .51, 10 1 .01	40.00			ψ0.00	\$195,074.28 \$0.00			***************************************	0.00 \$28,576.86	\$0.00			
28159 28159: Winston County				\$27,907.50	\$0.00	\$0.00	\$0.00	\$69,388,284.09	\$0.00						¢400 507 00	CO OO			CO2 240 CO	0			\$111,458.94 \$0	0.00 \$0.00	\$0.00			
28161 28161: Yalobusha County 28163 28163: Yazoo County	\$330,168.27 12 \$6,074,860.85	\$218,777.97 \$6,074,860.85		\$3,201.08	\$0.00 \$255,060.96 \$	\$0.00 \$0.00	\$0.00					\$3,565,101.02	02 \$0.00			\$0.00 \$0.00 \$666,112.34 \$0.00			\$92,240.29 \$111,390.3 \$40,170.70 \$0.0	0 \$261,420.63 \$0.00			\$630,606.14	\$0.00 0.00 \$0.00	\$0.00 \$0.00	\$14,880.62 \$0.00 \$485,733	3.04 \$0.	.00
Total Total								\$62.00 \$87,324,475.11 \$868,9	45.00 \$2,985,308.47 \$0.00 \$5,6	699,153.88	\$0.00 \$10,328,758.13 \$361,919.32 \$			10,686,013.14 \$109,533.61 \$6,453,697.90 \$104,416.02 \$				\$8,076,053.00 \$83,106.0				\$120,685,123.82 \$506,339.3						

APPENDIX

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DATA VISUALIZATION TOOLS

It is evident the U.S. is already paying a steep price for this challenge. Rebuild by Design partnered with APTIM and iParametrics to create the following visual tools to demonstrate how climate events have affected each state. The set of six maps depicts which areas have been hit the hardest by recent climate events, where recovery funds are focused, where those individuals with high social vulnerabilities live, and which areas have the least energy reliability.

The U.S. needs to change the way it is making funding decisions. Where we make priority investments is equally important to what we invest in. Returns on investments (ROI) in the form of social benefits to communities needs to be part of grant evaluations. The U.S. need to utilize new decision-making frameworks that are forward-looking. The final map in the set includes an example of a new decisionmaking framework that takes into account current vulnerabilities and future climate risks. This is one example of how physical and social vulnerability indicators could inform where investments in adaptation infrastructure can yield high returns in social benefits to the most impacted communities. Our team recognizes, however, that there are other decision-making frameworks to explore, and further research is needed to understand which indicators should be included in any state-specific model. Given the ever-present constraints on funding availability, the intent of presenting these maps together is to prompt investments that address multiple known vulnerabilities simultaneously within projects, furthering comprehensive climate adaptation planning.

The following data are designed as a tool to help communities understand their risks to make better-informed choices with higher returns on investment, though each state should determine their own framework for investment.

There are always many ways to present these data. For the purposes of this report, we chose to analyze the years 2011–2024. The following six maps and two tables are presented in this format with the following considerations and limitations:

GEOGRAPHIC MAP

The map provides topographic and geographic context for each state and its surrounding areas, indicating whether the state encompasses coastal, riverine, lake, alpine, or desert land.

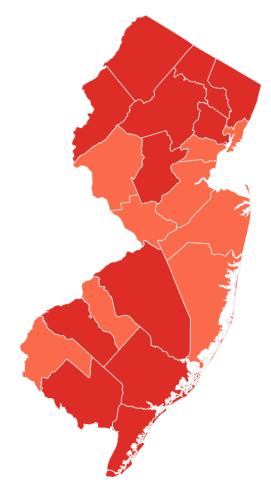


GEOGRAPHIC MAP. SOURCE: ESRI WORLD IMAGERY BASEMAP

DISASTER DECLARATIONS (RED)

This map shows federally declared climate disasters by county from 2011-2024 – providing a snapshot of the magnitude of climate disasters across the country in recent history. This report only identifies federally declared disasters, as there is no entity that collects and publishes state disaster declarations. It should be noted that the declarations shown in this report do not reflect every climate event that has occurred between 2011-2024; the report instead only shows those which have met the cost threshold for a federal disaster declaration. Therefore, the findings overall underestimate the number of occurrences and the suffering that some communities have experienced.

According to the Stafford Act, as amended in May 2021, a "major disaster" includes "any natural catastrophe (including any hurricane, tornado, storm, high water, winddriven water, tidal wave, tsunami, earthquake, volcanic eruption, landslide, mudslide, snowstorm, or drought), or, regardless of cause, any fire, flood,



DISASTER OCCURRENCES SOURCE: FEMA 2011-2024 MAP MADE BY REBUILD BY DESIGN

or explosion, in any part of the United States, which in the determination of the President causes damage of sufficient severity and magnitude to warrant major disaster assistance under this Act to supplement the efforts and available resources of States, local governments, and disaster relief organizations in alleviating the damage, loss, hardship, or suffering caused thereby."

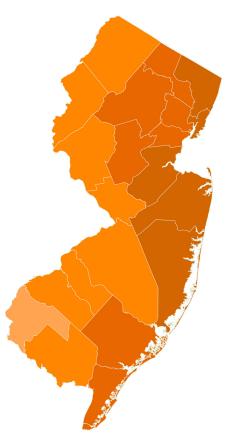
Importantly, extreme heat waves do not fit the criteria for federal disaster declarations despite being the leading cause of deaths among climate hazards. Likewise, sea level rise is not included in this definition despite the threat it poses to numerous communities, including damage to property, loss of land, and displacement.

It should be noted that while most disaster declarations are due to climate events, there are a few instances of disasters due to other natural hazards, such as earthquakes and volcanic eruptions. Though these events are not increasing in magnitude or frequency due to climate change, the severity of their impact may be connected. As climate impacts degrade household and critical infrastructure, communities may become more vulnerable to other natural hazards. Retrofitting infrastructure after these events often requires the same measures as floods, tornadoes, fires, etc., so these events were included in the report to demonstrate the need to prioritize multi hazard adaptation approaches.

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FEDERAL ASSISTANCE (ORANGE)

The map shows the amount of federal dollars allocated to counties through FEMA's Public Assistance and Hazard Mitigation Grant Programs between 2011-2024 which allocates funding to individual counties and statewide. The map does not show where "statewide" allocations were spent within the state, but rather only shows county allocations. However, these statewide allocation amounts are included in the Disaster Declaration table at the end of each chapter and included in the "FEMA Total" provided next to the map. The adjacent table adds HUD's Community Development Block Grant Disaster Recovery funds – which are only available to states after a disaster – to the FEMA Total for an estimate of federal post-disaster spending in each state.



FEDERAL ASSISTANCE SOURCE: FEMA (HA+PM) 2011-2024 MAP MADE BY REBUILD BY DESIGN

The Disaster Declaration tables provided at the end of each chapter show all federal Disaster Declarations declared between 2011-2024 and the corresponding FEMA obligations associated with those events.

However, in some instances, FEMA continues to obligate funds for years following a declaration. Some states have received funds for events that took place

between 2011-2024 after 2024, so the total sum of funds associated with that event are not captured. All FEMA funds allocated to counties between 2011-2024 are shown in the federal assistance map; however, they do not show up in the Disaster Declaration table if their corresponding event took place prior to 2011. For example, counties in the State of Illinois are still receiving funds from a 1960s storm. The funds obligated to those counties are included in the map, but that event is not included in the Disaster Declaration table at the end of the chapter.

There are additional sources of federal funding made available to governments or individuals in response to disasters, such as the U.S. Army Corp of Engineers (USACE) projects, Small Business Administration (SBA) loans, and private insurance payouts, which are not included in this report because they are harder to uniformly track and/or must be paid back. Therefore, our findings underestimate the total support available to states and individuals post-disaster.

Since disaster aid is allocated to repair physical damage to property, events such as extreme heat, which largely creates physical damage to persons and not property, rarely qualify for federal disaster recovery aid. Additionally, there is only a shallow understanding of the economic impact of social and health-related costs and environmental degradation after a disaster.

SOCIAL VULNERABILITY INDEX (GREEN)

Social vulnerability refers to the potential negative effects on communities caused by external stresses on human well-being. Such stresses include natural or human-caused disasters or disease outbreaks. The factors that determine social vulnerability are directly tied to social determinants of health or the social, economic, and physical factors - such as race, socioeconomic status, and environmental conditions - that influence health. Socially vulnerable populations fare the worst during a disaster and often take longer to recover. The Center for Disease Control/ Agency for Toxic Substance and Disease Registry Social Vulnerability Index (CDC/ATSDR SVI) uses 15 U.S. census variables to help local officials identify communities that may need support before, during, or after disasters. The map presents the SVI on a census block



SOCIAL VULNERABILITY SOURCE: CDC/ATSDR 2022 MAP MADE BY REBUILD BY DESIGN

level, indicating where the most socially vulnerable populations within each county live. The 15 indicators are grouped into four themes:

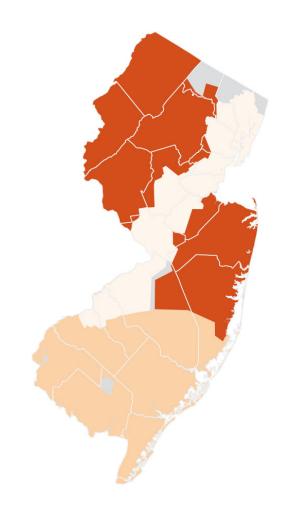
- Socioeconomic Status (below poverty, unemployed, income, no high school diploma);
- Household Composition & Disability (aged 65 or older, aged 17 or younger, older than age 5 with a disability, single-parent households);
- Minority Status & Language (minority, speak English "less than well"); and
- Housing Type & Transportation (multi-unit structures, mobile homes, crowding, no vehicle, group quarters).

Social Vulnerability Index data are not being used to make post-disaster assistance funding decisions. HUD only requires Low and Moderate Income for a portion of their funding. FEMA does not consider it in their allocations.

ENERGY RELIABILITY (BROWN)

Climate events often lead to energy disruptions for hours, days, or weeks. This map shows the annual average interruption time (in minutes) across the different energy utility providers within a state. Regions (or utility territories) in the darkest shade, on average, experience longer energy outages. These data are aggregated by utility territory, not county, meaning more than one provider can serve a county or group of counties.

Viewing the Energy Reliability Map next to the SVI Map, one can begin to infer which regions have the most socially vulnerable residents and are served by the least reliable energy providers. Energy reliability is increasingly becoming related to climate disasters and weather events. Inclusion of these maps is to support evaluation of need for concurrent flood and energy resilience projects.



ENERGY RELIABILITY SOURCE: US ENERGY INFORMATION ADMINISTRATION 2023 MAP MADE BY REBUILD BY DESIGN

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System Average Interruption Duration Index (SAIDI)

is one of the performance metrics used to measure the reliability of an electric utility's service. This metric measures the total time (in minutes) an average customer experiences a non-momentary power interruption over a one-year (calendar) period.

A Major Event Day (MED) is another metric which occurs when the SAIDI exceeds a specific threshold within a given day and tends to reflect outages on the longer end of the spectrum. The data presented in this report shows a metric of SAIDI combined with MED to highlight and report electric reliability in areas (utility territories) irrespective of the root cause of the interruption. The Energy Reliability Map displays the SAIDI_W_MED metric for utility territories and highlights areas that are susceptible to electric system vulnerabilities based on reliability performances. These vulnerabilities serve as an indicator as to where investments and improvements in the distribution grid should be focused.

Electric utilities experience power interruptions due to a variety of issues. Those issues include inclement weather, vegetation management practices, utility practices, maintenance patterns, and capital investment strategy, among others, which all play a part in a utility's overall reliability performance. The U.S. Energy Information Administration produces an Annual Electric Power Industry Report which utilizes data collected from U.S. electric utilities reflecting their reliability performance against certain industry standards and performance metrics. Utilities have the flexibility to report interruptions according to duration and frequency either with major events, without major events, or both.

The annual SAIDI is the summation of the individual SAIDIs for each non-momentary interruption event over the entire year (2023):

 $SAIDI = \frac{\sum (Duration of Interruption \times No. of Sustained Customer Interruptions)}{Total No. of Customers Served}$

For utilities that report SAIDI metrics using the Institute of Electrical and Electronics Engineers (IEEE) standards, "non-momentary" interruptions are those lasting

longer than five minutes. A Major Event Day (MED) is another metric which occurs when the SAIDI exceeds a specific threshold within a given day and tends to reflect outages on the longer end of the spectrum.

Utilities have certain flexibilities when reporting with these metrics. Including MED in the SAIDI metric (SAIDI_W_MED) provides an overall picture of the electric reliability experienced by customers. Excluding MED from the SAIDI metrics (SAIDI_WO_MED) tends to separate power interruption events by their durations, which provides an indicator of the source of the power interruption (i.e., distinguishes a Major Event vs. Systematic Operation interruption).

Our methodology utilizes SAIDI_W_MED as the primary measurement indicator for the electric reliability experience of the end user (customer). Our SAIDI_W_MED metric highlights the reported electric reliability in areas (utility territories, counties, and states) irrespective of the root cause of the interruption. Our metric does not exclude interruptions categorized as MEDs.

This report endeavors to highlight areas across the national electric distribution network (utility territories) that are susceptible to electric system vulnerabilities based on historical reliability of performance. We view vulnerabilities caused by major events (longer duration outages) on par with vulnerabilities caused by systematic failures (shorter duration outages) and believe they should equally drive electric grid investment and improvement decisions. These investments should also incorporate solutions aimed at mitigating systemic vulnerabilities that stem from issues like vegetation management practices, distribution automation improvements to major event vulnerabilities with root causes embedded in grid hardening, distribution generation schemes, and Automated Metering Infrastructure (AMI) upgrades aimed at minimizing customer interruption numbers and durations.

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