Advancing Federal Energy and Water in a Changing Climate

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September 12, 2023

Learning Objectives

Upon completion of this training, you will be able to:

- Understand the intersection of climate adaptation and energy/water resilience; how FEMP's resources can help a site increase its resilience posture and adapt to a changing climate
- Learn about FEMP tools and resources to evaluate site-level water consumption and how to use them
- Describe how FEMP tools and resources support the development of a comprehensive approach to meet carbon pollution-free electricity goals

What is one thing you would like to take away from this training?

0

Nobody has responded yet.

Hang tight! Responses are coming in.

FEMP 50

Federal Energy Management Program

Resilience and Climate

Agenda

- What is Resilience?
- Why do people care about resilience?
- Climate Change
  - Nationally
  - Regionally
- How do agencies become resilient?
  - Resilience Planning
  - Resilient Energy and Water Solutions
  - Business Justification for Resilience

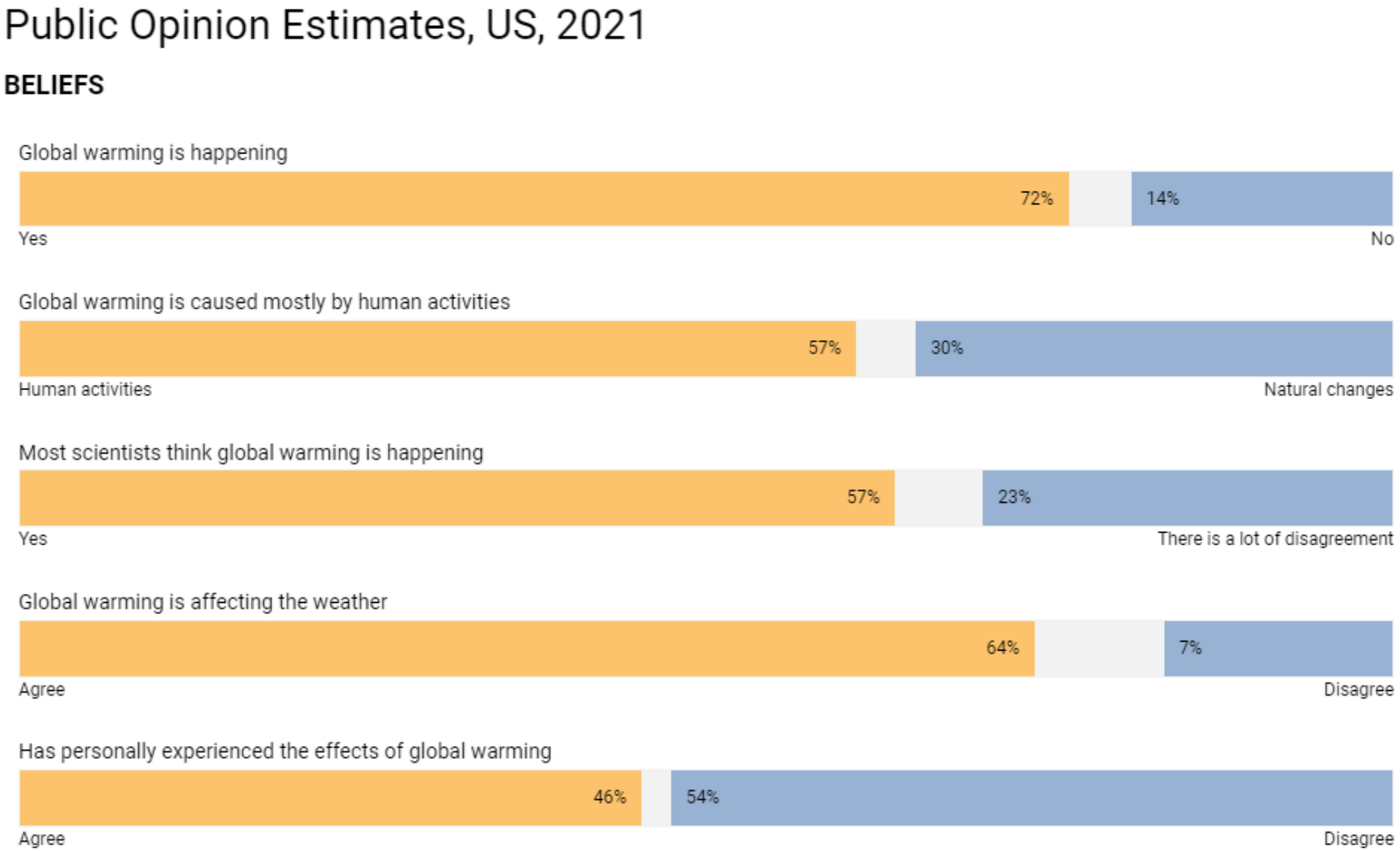
Resilience at FEMP

Resilience is the ability to anticipate, prepare for, and adapt to changing conditions; to withstand, respond to, and recover rapidly from disruptions through adaptable and holistic planning; and to develop resilience solutions that address operational, institutional, and technical gaps.

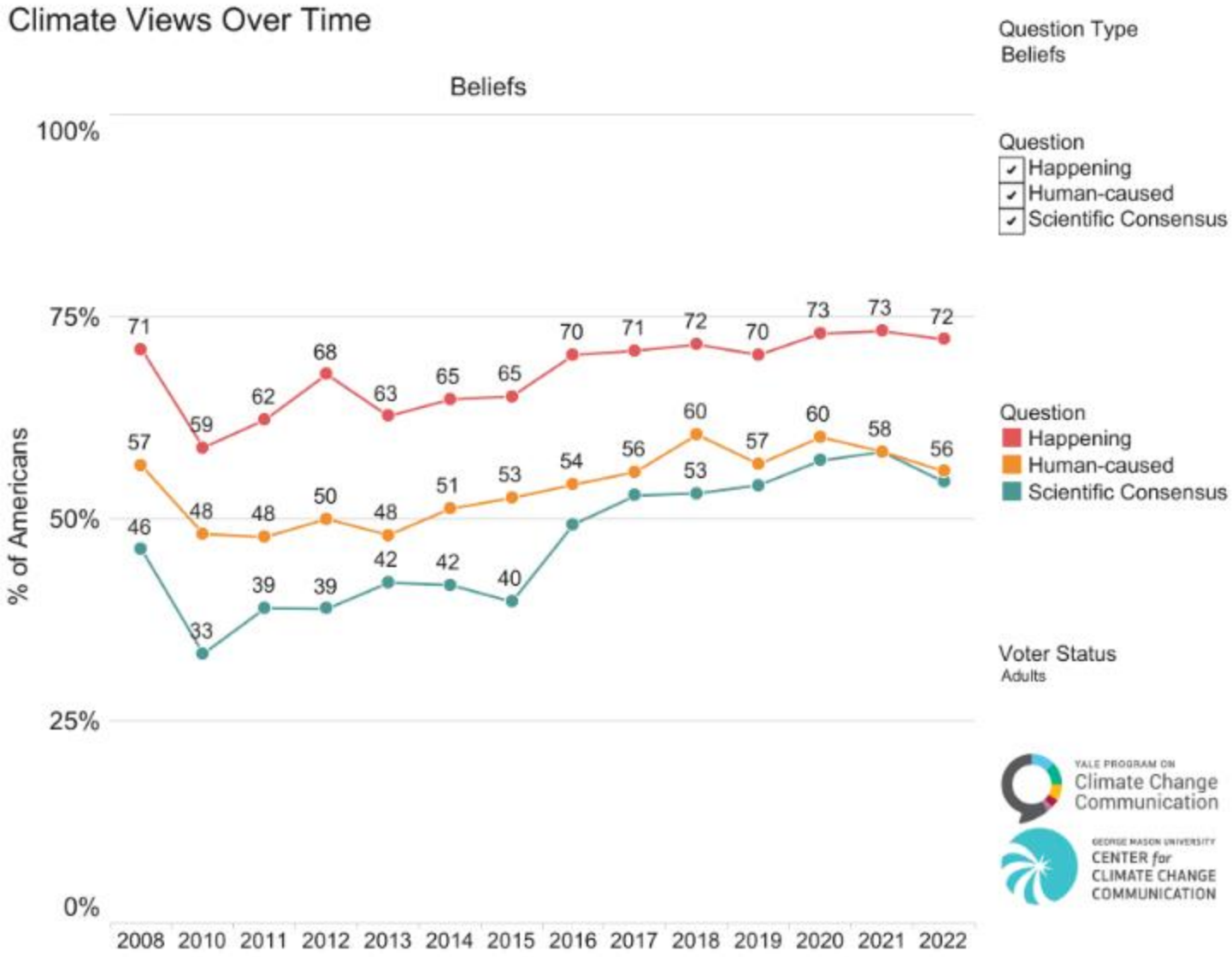
- Electricity*
- Communications
- Supply Chain
- Water*
- Cybersecurity
- Asset Reliability
- Natural Gas*
- Transportation
- And More...

Agencies seek to ensure their facilities and operations adapt to and are increasingly resilient to climate change impacts. Actions include climate vulnerability assessments, integrating climate-readiness across missions, and managing and mitigating climate risks.

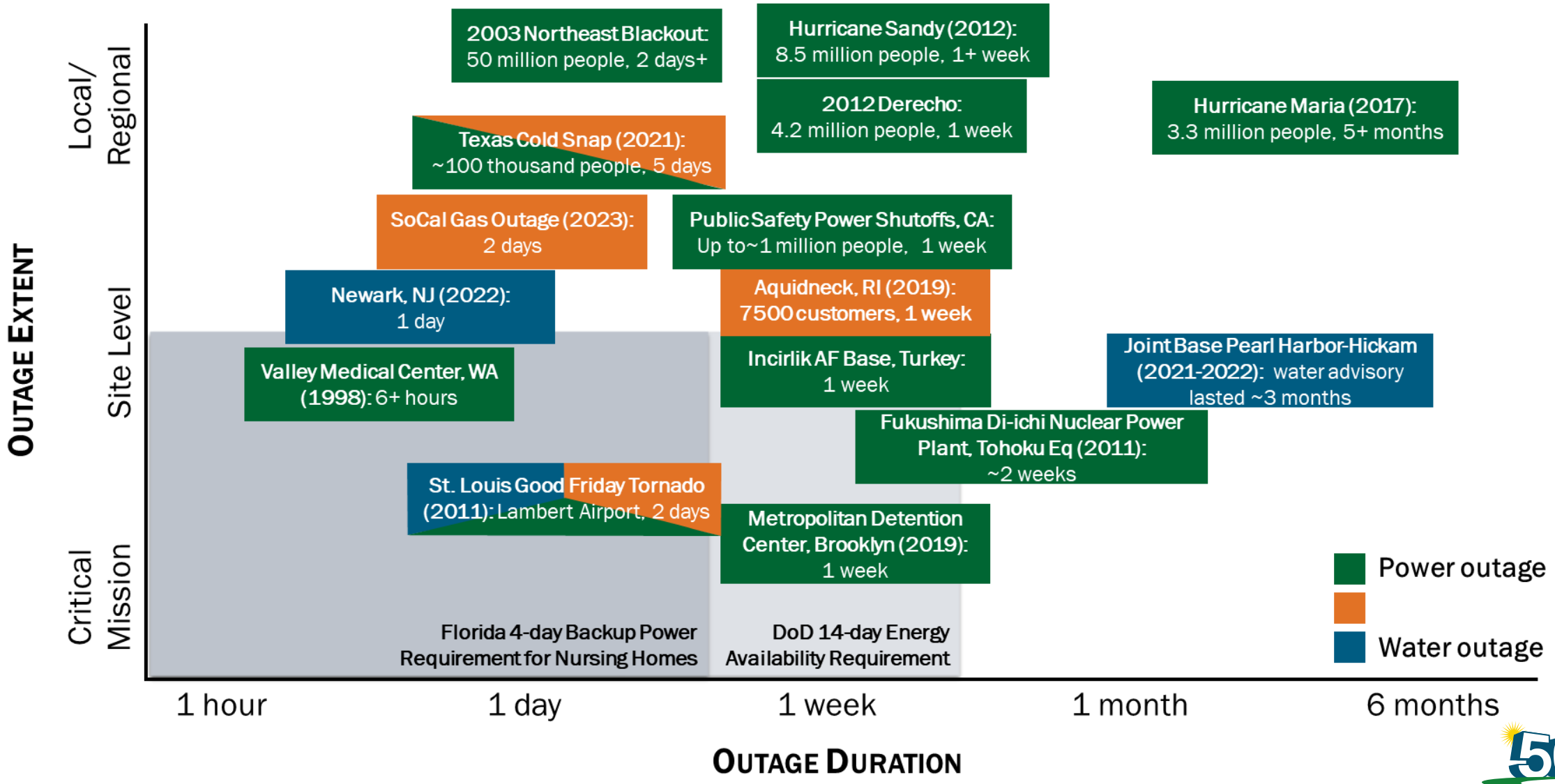
Public Opinion on Climate Change



Public Opinions on Climate Change Over Time



Energy and Water Resilience is Increasingly Important

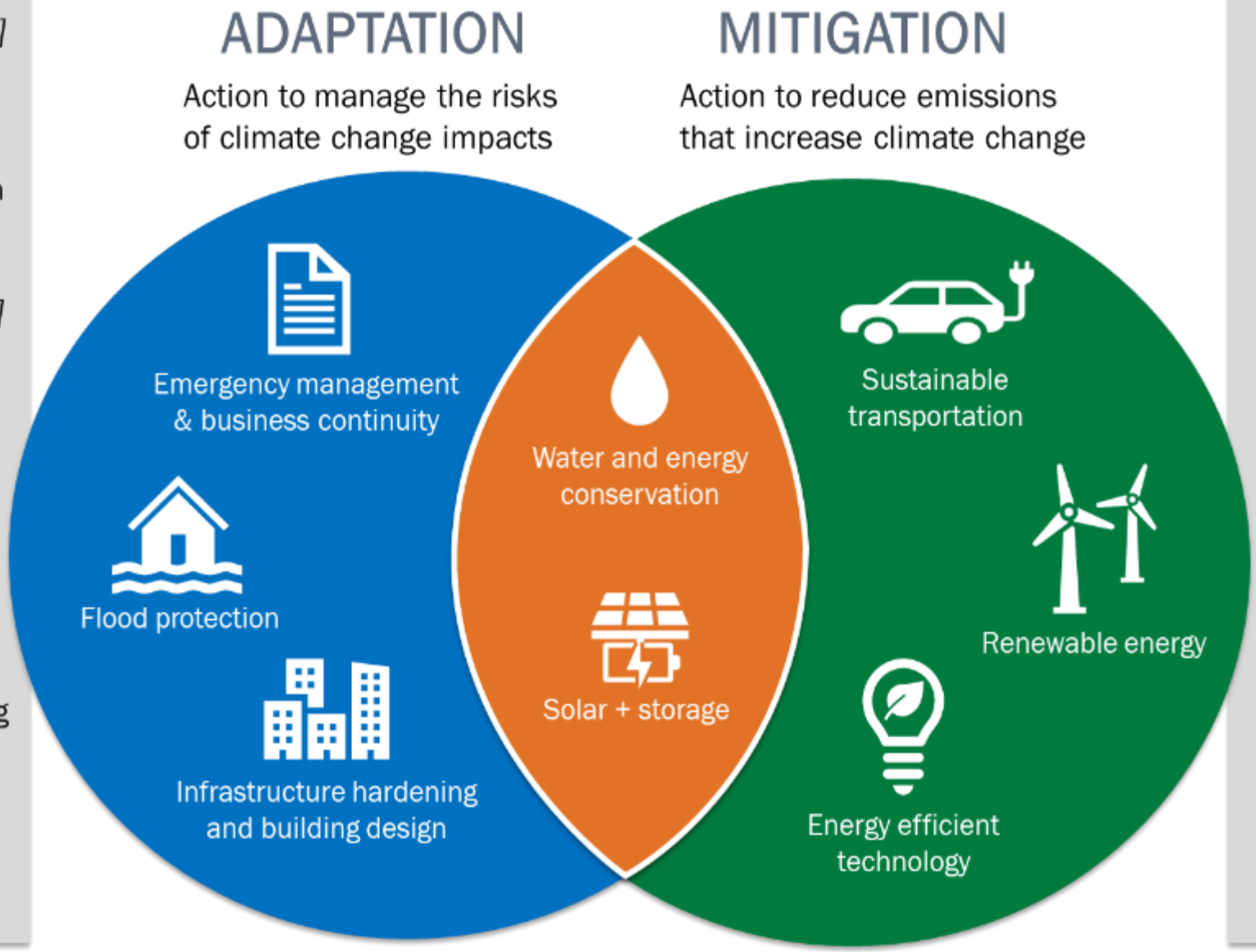


Achieving Climate Resilience

E.O. 14008 *[Sec. 211]*
- Climate Action Plans and Data & Information Products to improve adaptation and increase resilience

E.O. 14057 *[Sec. 102]*
- Climate resilient infrastructure and operations
- Climate- and sustainability-focused Federal workforce

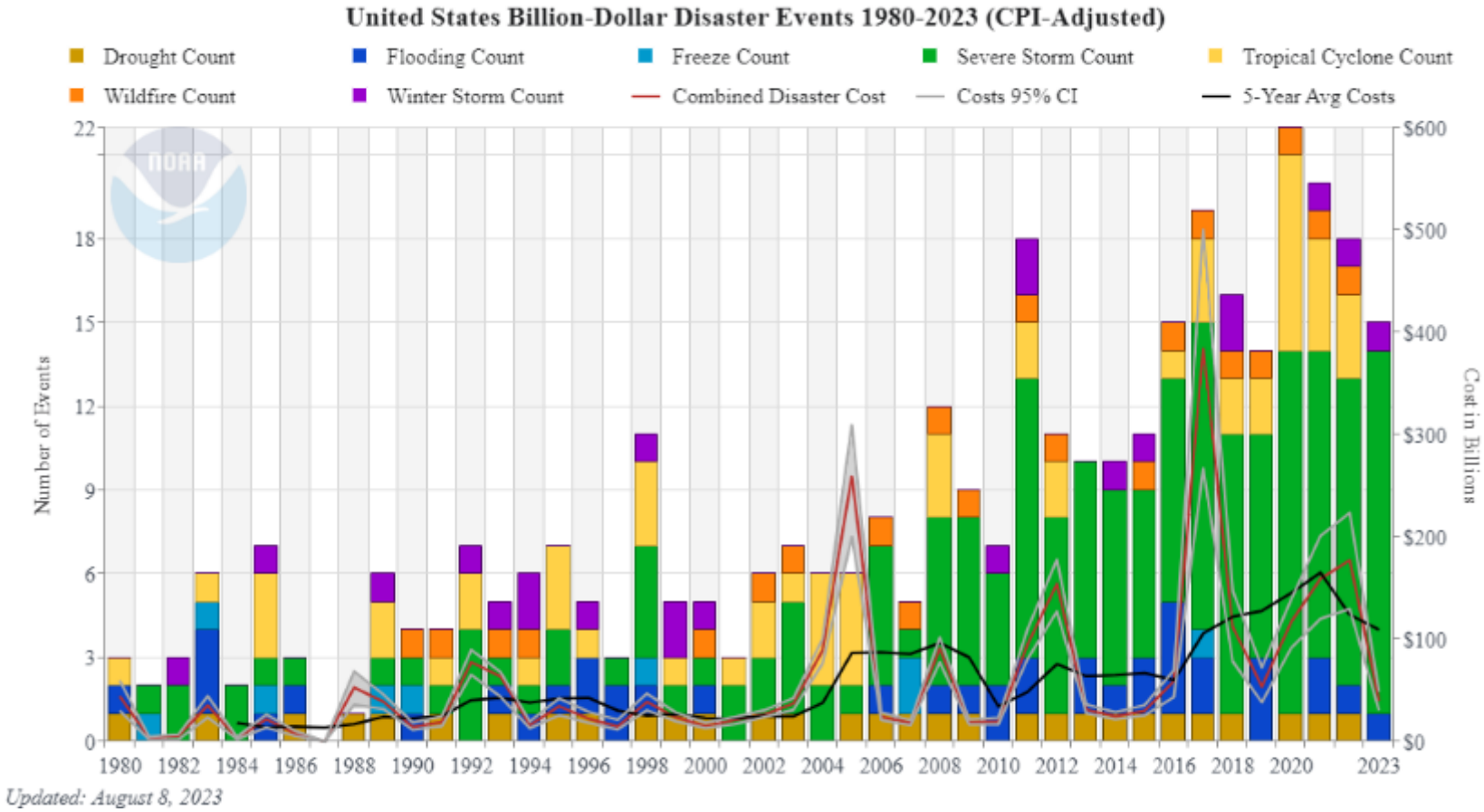
E.O. 14072 *[Sec. 2]*
- Climate-smart management and conservation planning to address threats to mature and old-growth forests on Federal lands



E.O. 14057 *[Sec. 102]*
- 100% carbon pollution-free electricity on net annual basis by 2030
- 100% zero-emission vehicle acquisitions by 2035
- Net-zero emissions building portfolio by 2045
- 65% reduction in scope 1 and 2 GHG emissions by 2030 from 2008 levels
- Net-zero emissions from Federal procurement

High Impact Hazards Occurring More Frequently Over Time

- NOAA analysis of “billion-dollar disasters” demonstrates an increase in hazards that are likely to be impacted by climate change over time
- Increasing cost of natural hazards is likely a combination of increasing population and climate change effects



Source: https://www.ncei.noaa.gov/access/billions/time-series

Climate Change: Scenarios & Projections

- Projections are models that *simulate* changes in the earth's climate
- Scenarios describe possible future outcomes of climate change *impacts*
  - RCP = Representative Concentration Pathways
  - RCP 4.5 and RCP 8.5 are two different climate futures considered to be plausible

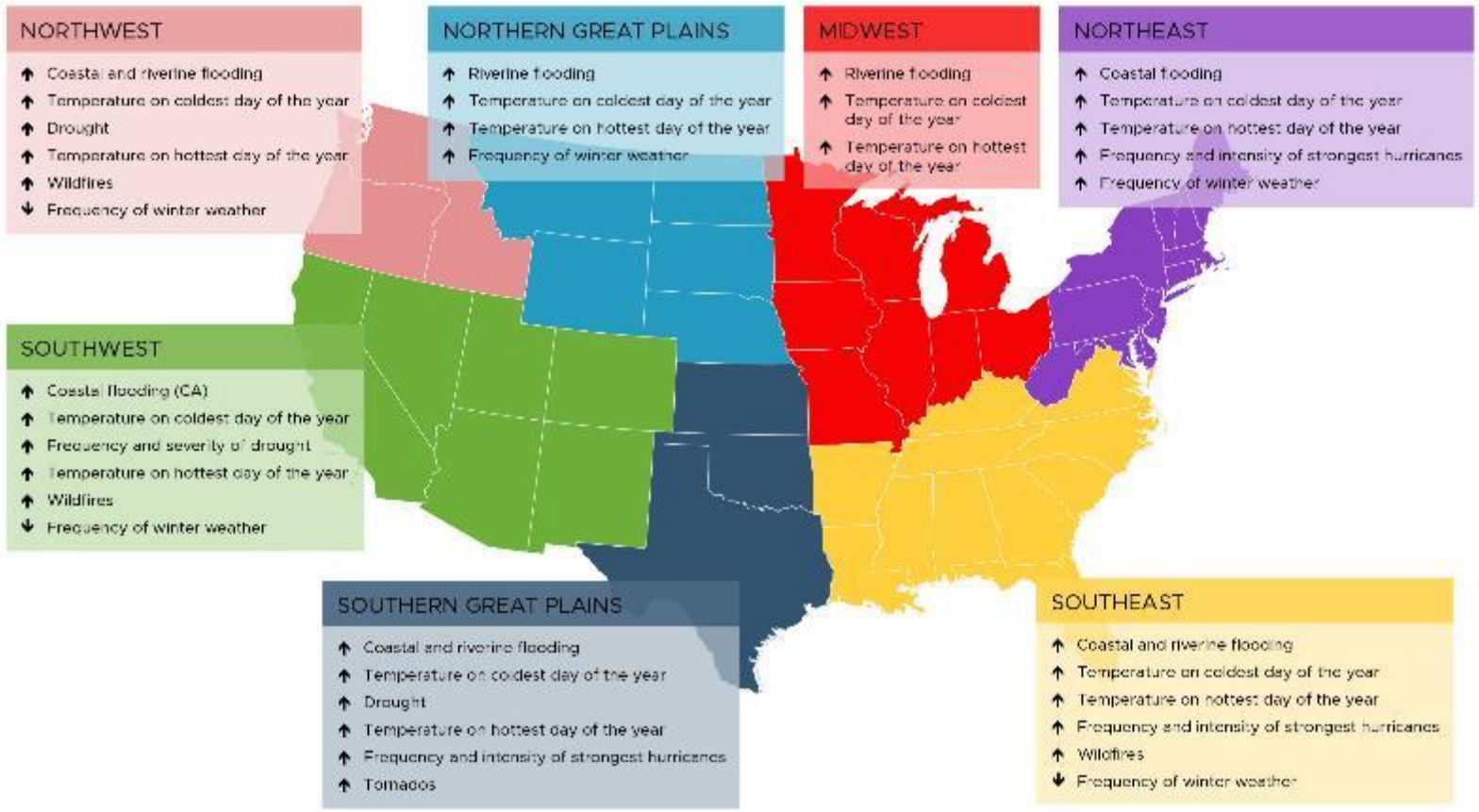


Figure Source: Delgado, A., and Rabinowitz, H.S. Considering Climate Change Scenarios in Site Resilience Planning. 2021. doi:10.2172/1833511. (After 4th NCA 2018, note 5th NCA anticipated to be released in 2023)

North America's Impacts from Climate Change

- Intergovernmental Panel on Climate Change (IPCC)
  - Under all future scenarios and global warming levels, temperatures and extreme high temperatures are expected to continue to increase (virtually certain)
  - Relative sea level rise is projected to increase along most coasts (high confidence)
    - increased coastal flooding and erosion
  - Ocean acidification (along coasts) and marine heatwaves (intensity and duration) are projected to increase (virtually certain and high confidence, respectively)
  - Tropical cyclones (with higher precipitation), severe storms, and dust storms are expected to become more extreme (medium confidence)

*IPCC Sixth Assessment – Regional Fact Sheet – North and Central America

Regional Impacts from Climate Change

- Intergovernmental Panel on Climate Change (IPCC)
  - West Coast and Midwest
    - Increases in drought and fire weather (high confidence)
    - Increases in extreme precipitation (very likely)
    - Increases in river and pluvial flooding (medium confidence)
    - Increases in precipitation in northern Midwest in winter (medium confidence)
  - East Coast
    - Increases in mean and extreme precipitation (very likely)
    - Increase in river and pluvial flooding (medium confidence)

*IPCC Sixth Assessment – Regional Fact Sheet – North and Central America

FEMP Resilience Program Offerings

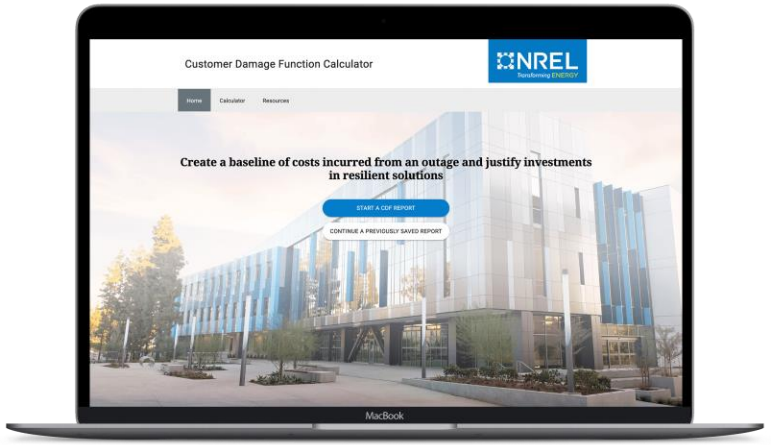
Resilience Planning

- Agency agnostic tools and resources to guide stakeholders through the process of assessing and implementing projects that enhance site resilience

https://trn.pnnl.gov/

Resilience Valuation

- Tools and frameworks to help stakeholders better quantify the benefits from resilience projects or measures

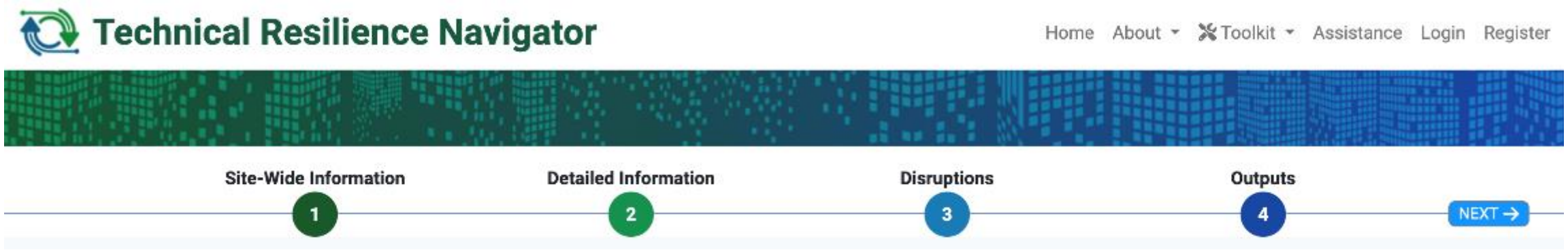


https://cdfc.nrel.gov/

Resilience Planning

- Vulnerability Assessments – DOE VARP
- Installation Energy Plans – DoD
- Technical Resilience Navigator Assessments – FEMP
- Resilience Table Top Exercises
  - Mutual Aid Readiness Exercises
  - Pull the Plug Exercises
- Black Start Exercises
  - Energy Resilience and Readiness Exercises (ERRE) – AF
- Resilience Frameworks - DHS

Site Resilience Planning Tool: TRN Lite



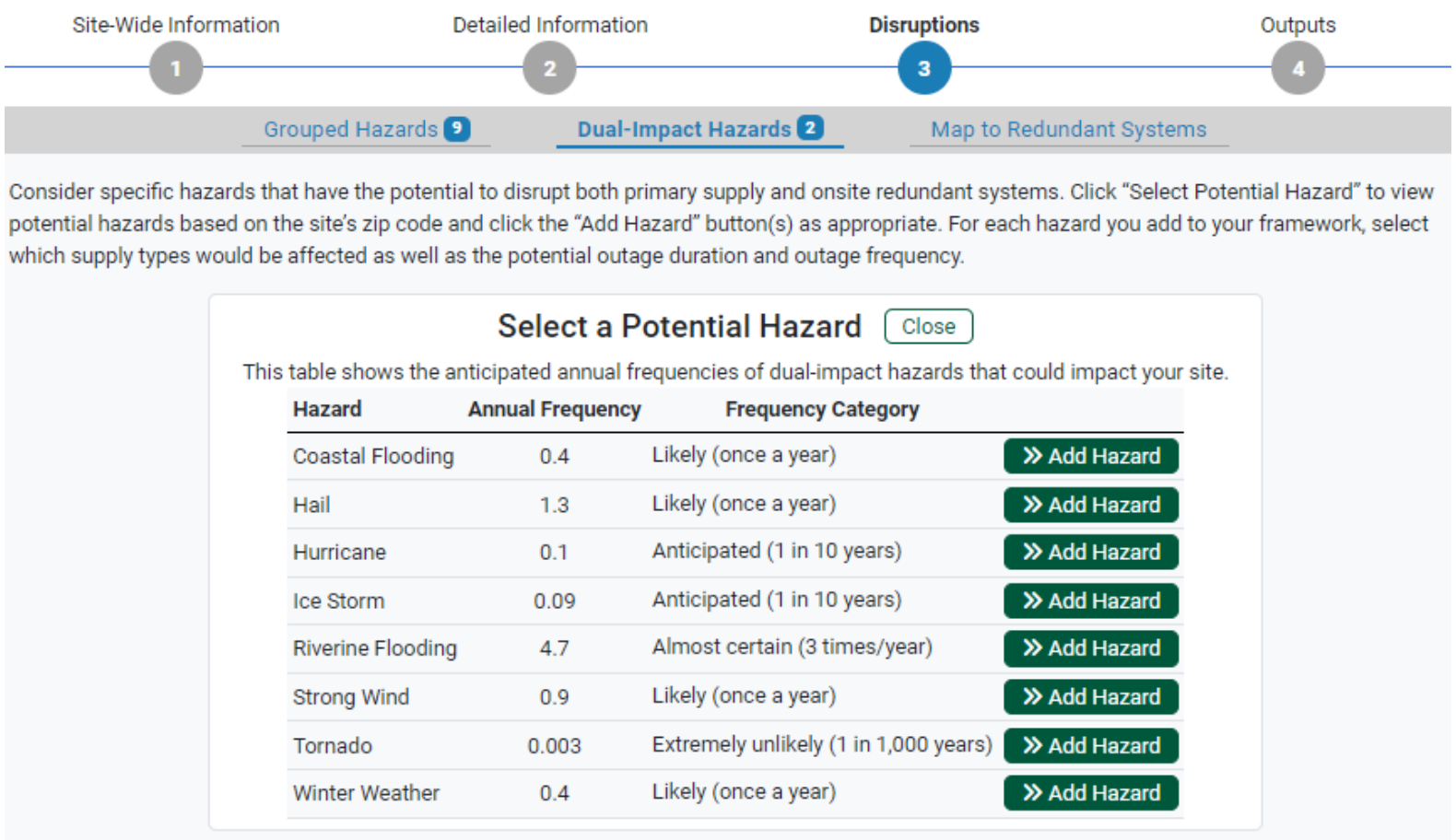
Key Outcomes

- Identify site hazards and vulnerabilities in site energy & water systems
- Establish relative risk from different sources
- View potential solutions auto-generated based on key risk drivers

Available publicly: https://trn.pnnl.gov/

Identifying Hazards

- TRN Lite identifies potential range of hazards and how frequently they may impact a site based on historic data (FEMA)
- For climate change planning, need to understand how hazard may change at **your** site



Hazard	Annual Frequency	Frequency Category	
Coastal Flooding	0.4	Likely (once a year)	» Add Hazard
Hail	1.3	Likely (once a year)	» Add Hazard
Hurricane	0.1	Anticipated (1 in 10 years)	» Add Hazard
Ice Storm	0.09	Anticipated (1 in 10 years)	» Add Hazard
Riverine Flooding	4.7	Almost certain (3 times/year)	» Add Hazard
Strong Wind	0.9	Likely (once a year)	» Add Hazard
Tornado	0.003	Extremely unlikely (1 in 1,000 years)	» Add Hazard
Winter Weather	0.4	Likely (once a year)	» Add Hazard

Available outside TRN log-in at:
https://trn.pnnl.gov/toolkit/potential-hazards

Site-Wide Information 1 — Detailed Information 2 — Disruptions 3 — **Outputs 4**

Risk Drivers | Solutions

Risk Driver Summary

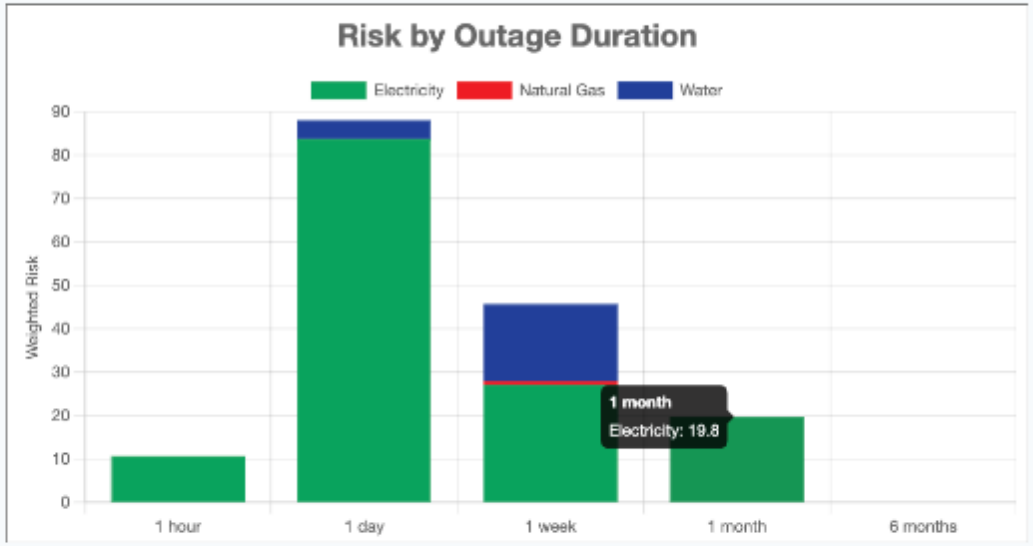
Show Top 3 

Summary | Detail

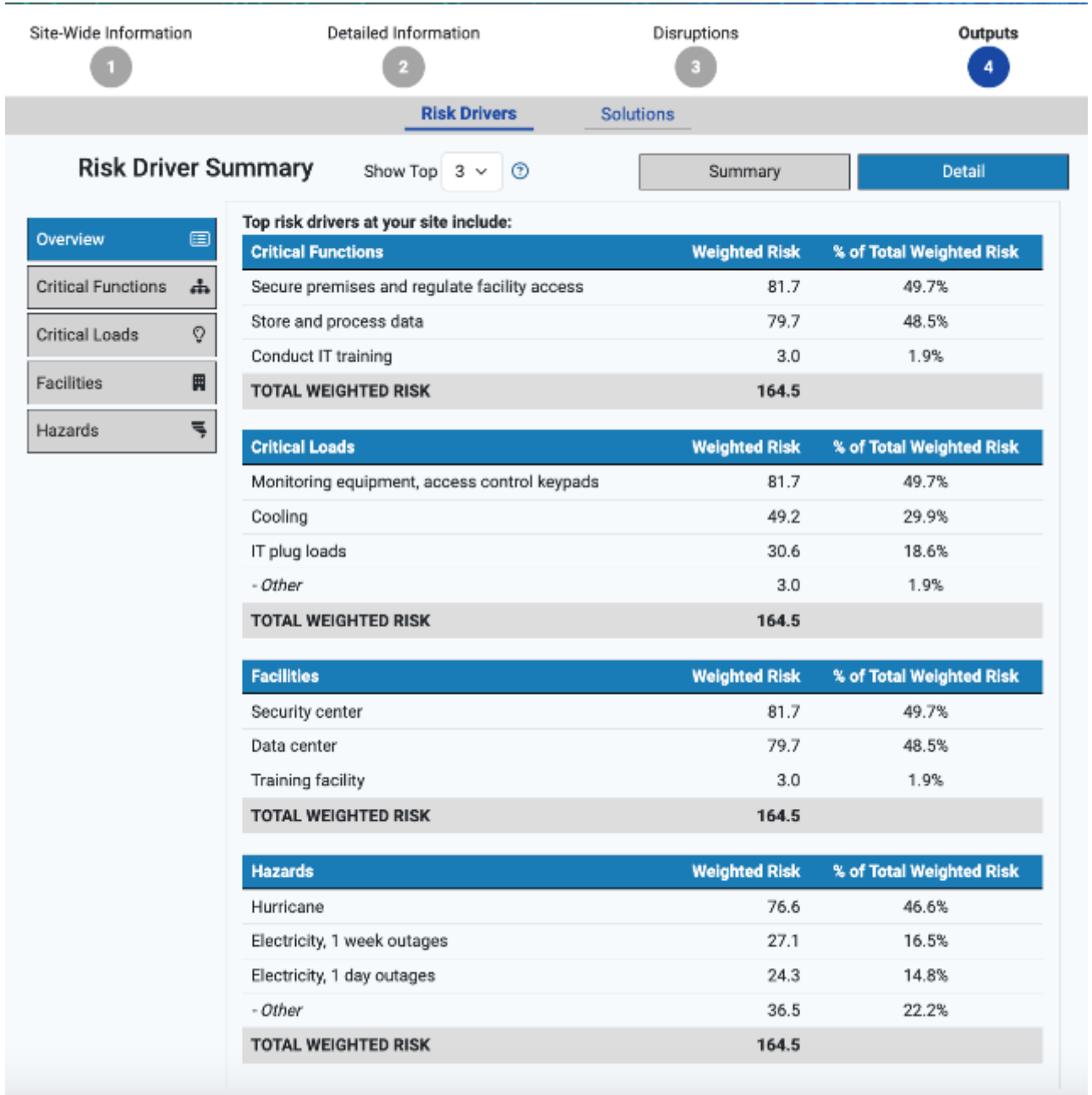
- Overview 
- Critical Functions 
- Critical Loads 
- Facilities 
- Hazards 

View an overview of risk drivers at the site or select a subset of risk drivers to focus on among critical functions, critical loads, facilities, and hazards. For each subset, you can either view a summary of the data or a more detailed look at each risk driver type, including the associated supply type affected.

What characteristics of hazards are driving risk?



Duration	Electricity	Natural Gas	Water	Total Weighted Risk
1 hour	10.8	-	-	10.8
1 day	83.8	-	4.3	88.1
1 week	27.1	0.9	17.8	45.8
1 month	19.8	-	-	19.8
6 months	-	-	-	-


Site-Wide Information
1
Detailed Information
2
Disruptions
3
Outputs
4
Risk Drivers
Solutions
Risk Driver Summary
Show Top 3
Summary
Detail
Overview
Critical Functions
Critical Loads
Facilities
Hazards
Top risk drivers at your site include:
Critical Functions | Weighted Risk | % of Total Weighted Risk
Secure premises and regulate facility access | 81.7 | 49.7%
Store and process data | 79.7 | 48.5%
Conduct IT training | 3.0 | 1.9%
TOTAL WEIGHTED RISK | 164.5
Critical Loads | Weighted Risk | % of Total Weighted Risk
Monitoring equipment, access control keypads | 81.7 | 49.7%
Cooling | 49.2 | 29.9%
IT plug loads | 30.6 | 18.6%
- Other | 3.0 | 1.9%
TOTAL WEIGHTED RISK | 164.5
Facilities | Weighted Risk | % of Total Weighted Risk
Security center | 81.7 | 49.7%
Data center | 79.7 | 48.5%
Training facility | 3.0 | 1.9%
TOTAL WEIGHTED RISK | 164.5
Hazards | Weighted Risk | % of Total Weighted Risk
Hurricane | 76.6 | 46.6%
Electricity, 1 week outages | 27.1 | 16.5%
Electricity, 1 day outages | 24.3 | 14.8%
- Other | 36.5 | 22.2%
TOTAL WEIGHTED RISK | 164.5

Risk Driver Summary

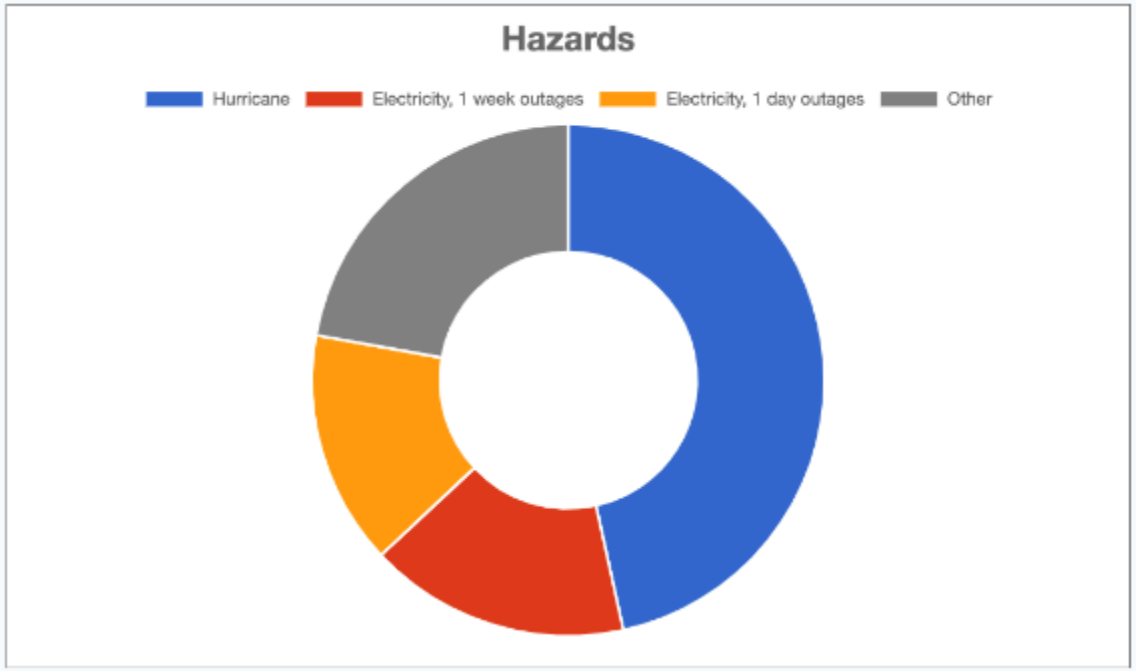
Show Top 3

Summary | Detail

- Overview
- Critical Functions
- Critical Loads
- Facilities
- Hazards

The top three hazards driving risk are:

Hurricane; Electricity, 1 week outages; Electricity, 1 day outages



Hazards	Weighted Risk	% of Total Weighted Risk
Hurricane	76.6	46.6%
Electricity, 1 week outages	27.1	16.5%
Electricity, 1 day outages	24.3	14.8%
- Other	36.5	22.2%
TOTAL WEIGHTED RISK	**164.5**	

Risk Driver Summary

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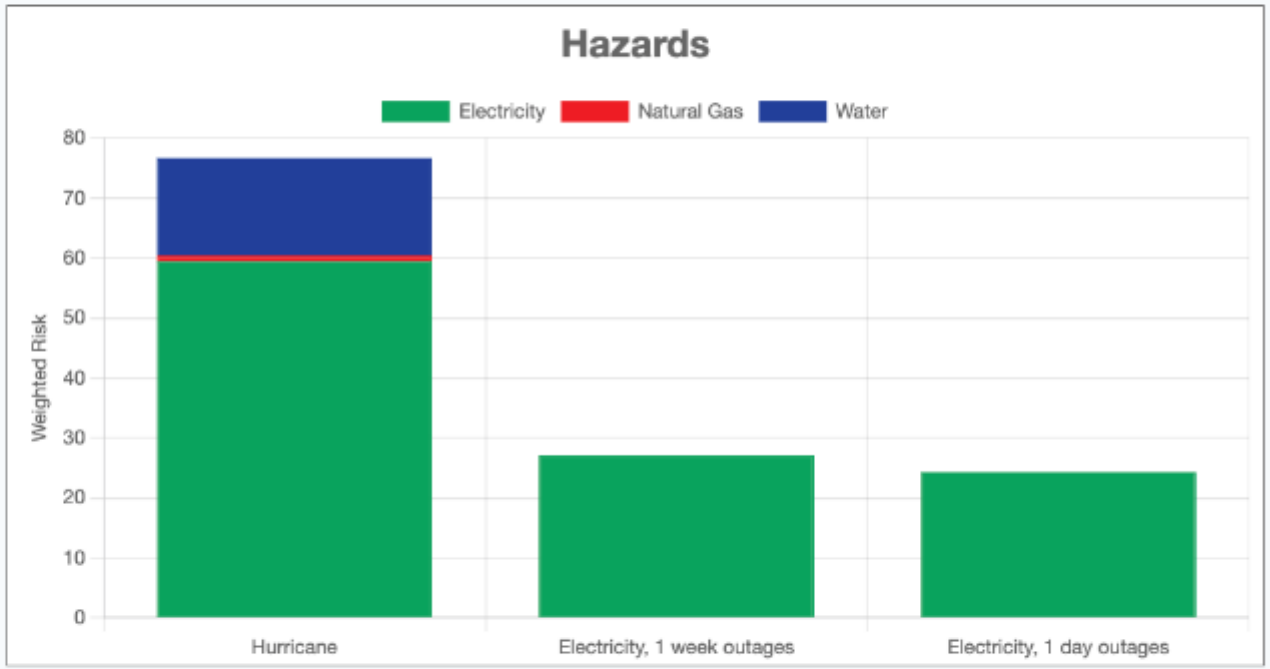
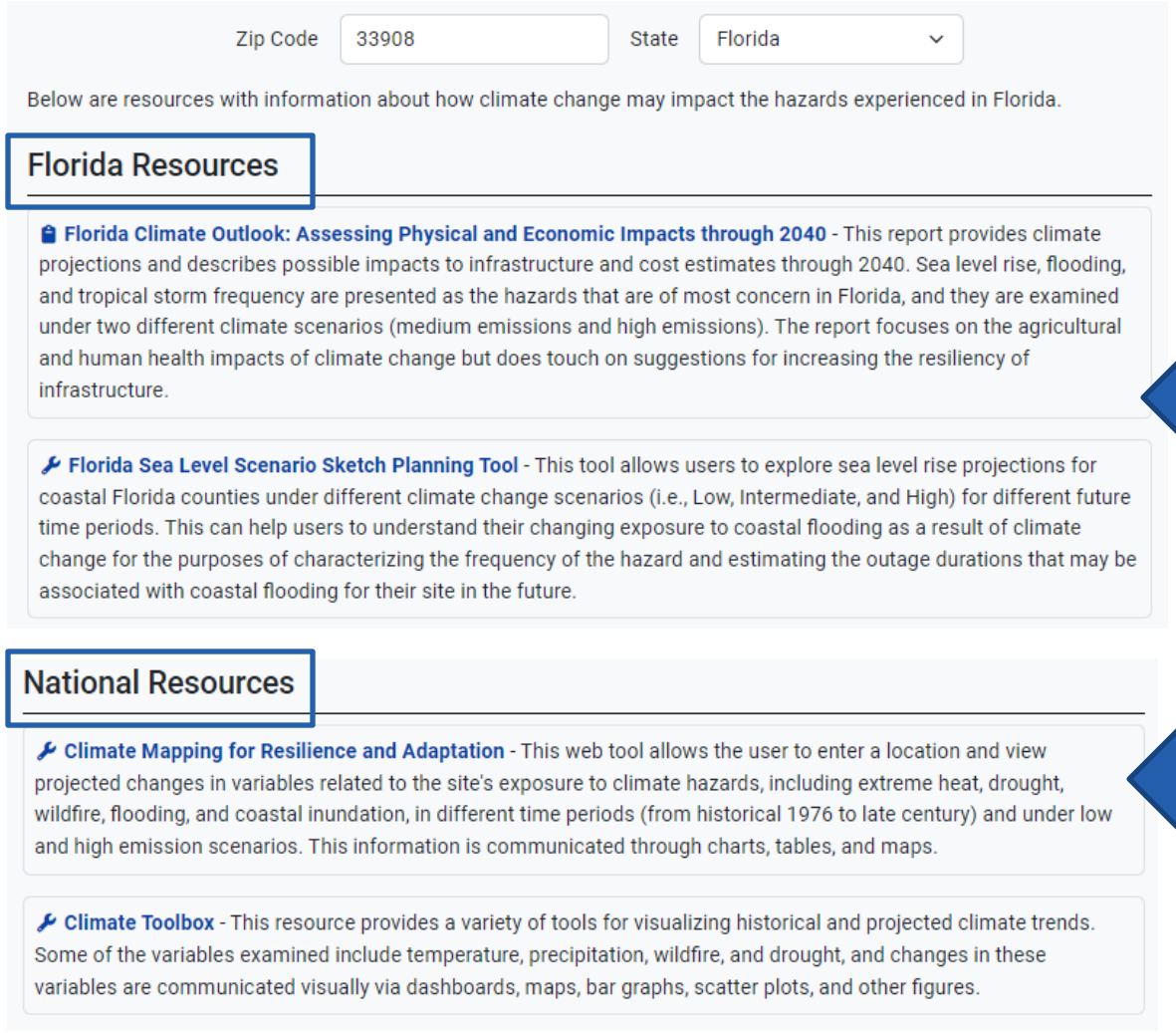


Hazards	Electricity	Natural Gas	Water
Hurricane	59.5	0.9	16.2
Electricity, 1 week outages	27.1	-	-
Electricity, 1 day outages	24.3	-	-

Incorporating Climate Change Considerations



TRN Climate Change Resources Tool

- Tool identifies relevant climate change resources (assessments, reports, and web tools) for a zip code or state entry

State resources are provided, as available, for state-level information on how climate change may affect specific hazards. National tools may not account for state-level heterogeneity in hazards

National resources are provided for every state, including those lacking state-level resources, and include the NCA state summaries, climate and sea level-rise mapping tools, and other resources

Available outside TRN log-in at:
https://trn.pnnl.gov/toolkit/climate-change-resources

Climate Change Mitigation Solutions

Climate mitigation actions focus on reducing greenhouse gas emissions by enhancing energy efficiency and decarbonizing/diversifying energy supply.

Enhancing energy efficiency

- Choose energy-efficient appliances, equipment, and lighting
- Improve insulation sealing duct work to reduce energy loss during heating and cooling
- Install efficient heat pumps
- Modernize HVAC control systems

DOE. "Heat Pump Systems." https://www.energy.gov/energysaver/heat-pump-systems

Climate Change Adaptation Solutions

Climate adaptation actions focus on mitigating the risks of climate change impacts, such as the increasing frequency and severity of natural hazards.

BBC. "Welney flood barrier: Norfolk road disruption for weeks." https://www.bbc.com/news/uk-england-norfolk-61526512

Climate Adaptation

- Implement flood hardening, such as elevating systems above flood and storm surge levels, installing enclosures or barriers to protect against inundation, and installing drainage
- Use natural infrastructure to control riverine flooding, such as planting trees to control stormwater runoff, building swales, controlling steam bank erosion, and protecting and enhancing riparian buffers and floodplains
- Implement wildfire hardening, such as installing a built-in fire suppression system around systems and managing vegetation

Example Resilience Solutions

Resource Impacted	Solution Description
Energy	Microgrid serving critical loads with onsite storage and islanding controls.
Energy and Water	Recovery plans in place and exercised.
Energy	Develop strategic investment plan for critical infrastructure and end-of-life replacement with more resilient infrastructure.
Energy and Water	Increase site security, remote monitoring, and/or develop robust fence and gate infrastructure for physical security.
Energy and Water	Develop pre-event checklist for site preparation.
Energy	Develop distributed resources for spatial diversity and grid flexibility, implement redundant transmission and distribution lines, and/or diversify energy supply.
Water	Develop site appropriate water infrastructure (e.g., redundant supplies; implement water saving/reuse measures, separate combined sewer infrastructure to reduce system stress and reduce treatment energy loads).

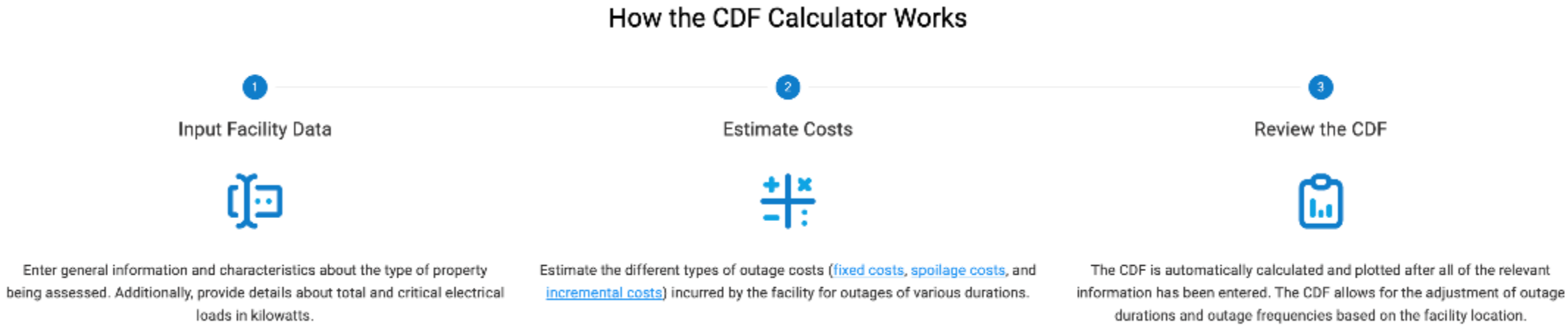
*Table presents a subset of example solutions included in the **Technical Resilience Navigator**

Resilience Valuation/Metrics

- What is the cost of downtime?
- How do we measure resilience?
  - Outage duration? Frequency? Cost?
- How does climate change impact our resilience baseline?
  - Grid outages are going to increase/worsen
- What tools and metrics do energy managers and facility decision makers need to justify additional funds for resilience investments?

What is the CDF Calculator

- NREL developed with funding and support from FEMP
- Generate monetary values to justify investments in resilience solutions to prevent or lessen the impact of a grid outage at a facility
- Screening tool that provides justification to site/HQ leadership for resilience investments
  - Weighing the cost of a resilience investment against the benefit it provides
- Value of Resilience (VoR)
  - Understanding VoR is important for informing investment decisions in power systems resilience

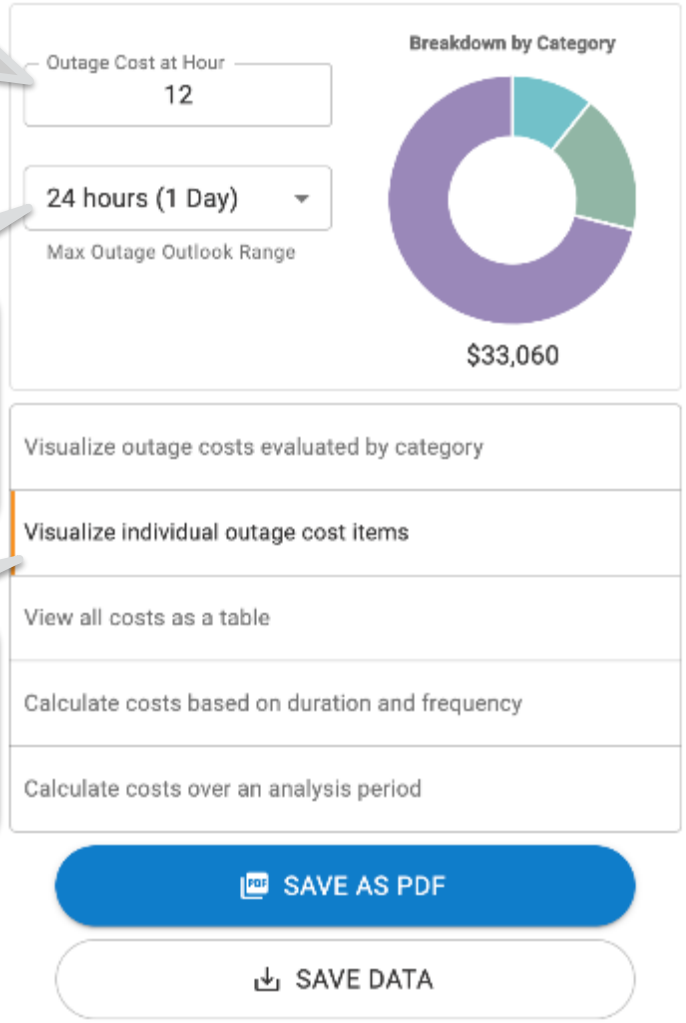


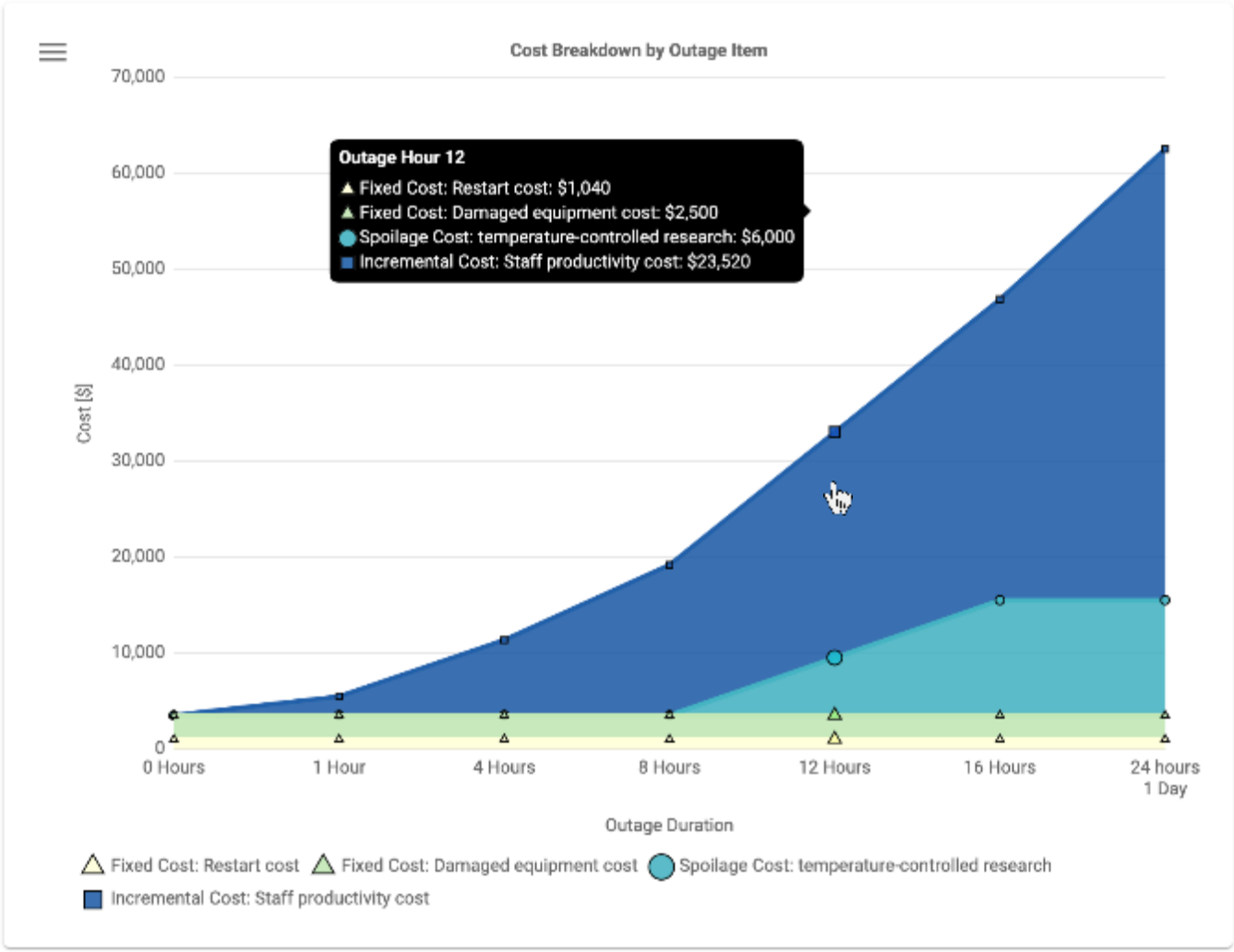
Results – Customer Damage Function

Enter an hour to determine the cost of the outage

Use the drop down to set the x-axis on the chart on the right

Tab through different sections to evaluate the CDF





FEMP Water Management Program

Tools for increased facility resilience

Agenda

- Introduction to FEMP Water Management Program
- Resources for Water Resilience
  - Water Efficiency Resources
  - Alternative Water Resources
  - Water Vulnerability Assessment Tool

FEMP Water Management

FEMP provides support to Federal agencies to meet water related goals, with the aim to turn energy managers into water managers through:

- Training
- Tools
- Technical resources
- Support on water mandates and reporting

Federal Facility Water Management Legislation

- Energy Act of 2005
  - Comprehensive Energy and Water Evaluations
  - Water efficient procurement
  - Water efficiency measure implementation
- Energy Independence and Security Act 2007
  - Measurement and verification
  - Sustainable design
  - Stormwater management
- Energy Act of 2020
  - Water metering
  - Water efficiency measure implementation
  - Use of performance contracts
  - Energy manager responsibilities that include water management
  - Commissioning of water equipment

Federal Water-Related Laws and Statutes

Title	Legal Authority	Originating Legislation	Summary
Comprehensive Energy and Water Evaluations	42 U.S.C. § 8253(f)(3)(A)	Energy Independence and Security Act (EISA) 2007 § 432 and Energy Act of 2020 § 1002	Agency energy managers are required to complete an annual comprehensive energy and water evaluation for approximately 25% of agency covered facilities in a manner that ensures that an evaluation of such facility is completed at least once every 4 years.
Implementation Water Efficiency Measures & Performance Contracting	42 U.S.C. § 8253(f)(4) And 42 U.S.C. § 8253(b)(1)	EISA 2007 § 432 and Energy Act of 2020 § 1002	Each agency shall implement any water-saving measure that was identified as life cycle cost (LCC) effective in the water evaluations and bundle individual measures of varying paybacks together into combined projects. And Each federal agency shall use performance contracting to address at least 50 percent of the measures identified in comprehensive evaluations.
Commissioning and Measurement and Verification	42 U.S.C. § 8253(f)(5)	EISA 2007 § 432 and Energy Act 2020	For each measure implemented under 42 U.S.C. § 8253(f)(4), agencies are required to ensure that equipment is fully commissioned at acceptance to be operating at design specifications; equipment and system performance is measured during its entire life to ensure proper operations, maintenance, and repair; and energy and water savings are measured and verified.
Building Water Metering	42 U.S.C. § 8253(e)	Energy Act of 2020 § 1002	All Federal Buildings shall be metered for water by October 1, 2022 and to the maximum extent practicable, shall be metered with advanced meters that provide data at least daily and measure data at least hourly (in accordance with guidance submitted by FEMP).
Energy Manager Responsibilities	42 U.S.C. § 8253(f)(2)	Energy Act of 2020 § 1002	Agencies are required to designate an energy manager that is responsible for reducing energy ***and water*** at each facility; energy managers shall take into consideration the use of a system to manage energy and water at the facility.
Sustainable Design Principles	42 U.S.C. § 6834(a)(3)(D)(i)(III)	EISA 2007 § 433	Sustainable design principles shall be applied to siting, design, and construction of all new and replacement buildings.
Water-Efficient Product Procurement	42 U.S.C. § 8259b(b)	EPAct 2005 § 104	Federal agencies are required to procure ENERGY STAR and FEMP designated products.

Water Resilience

- How does FEMP help agencies advance their water planning for a changing climate?
  - Lower demand of freshwater through efficiency
  - Find alternative water sources to ensure Federal missions can be met
  - Understand water availability to strategically target sites with higher risk

FEMP Water Efficiency Website

FEMP's website offers many technical resources:

- Comprehensive water evaluations
- Water-efficient technologies and practices
- Alternative water sources

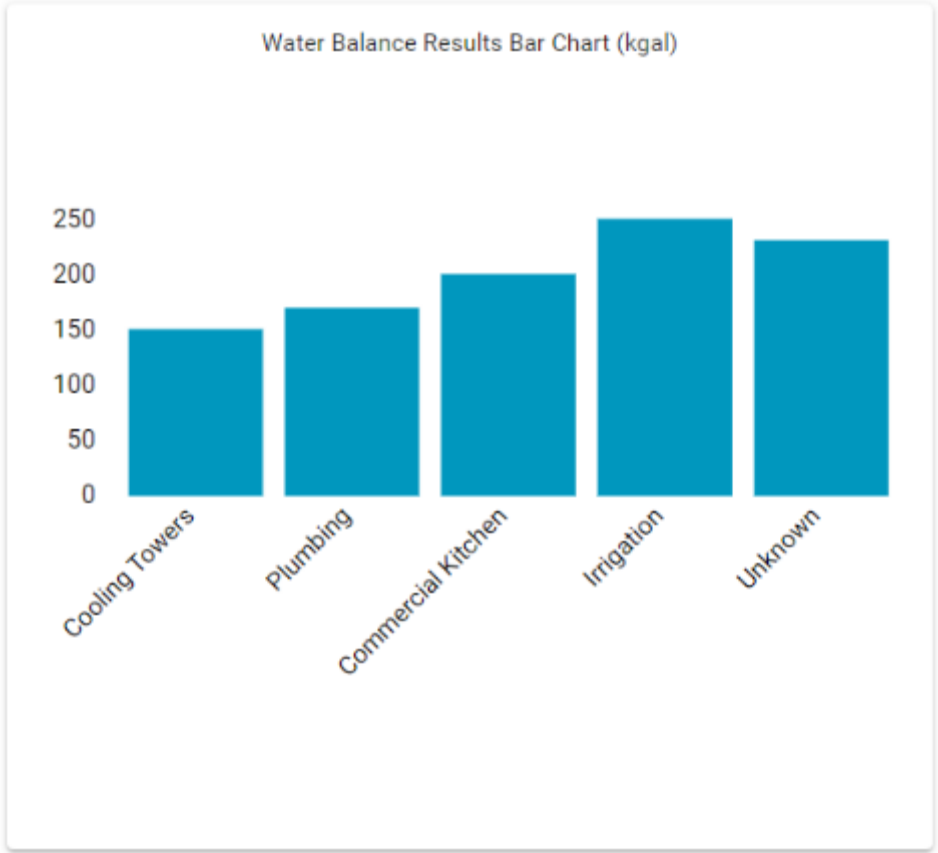
https://www.energy.gov/femp/water-efficiency-federal-buildings-and-campuses

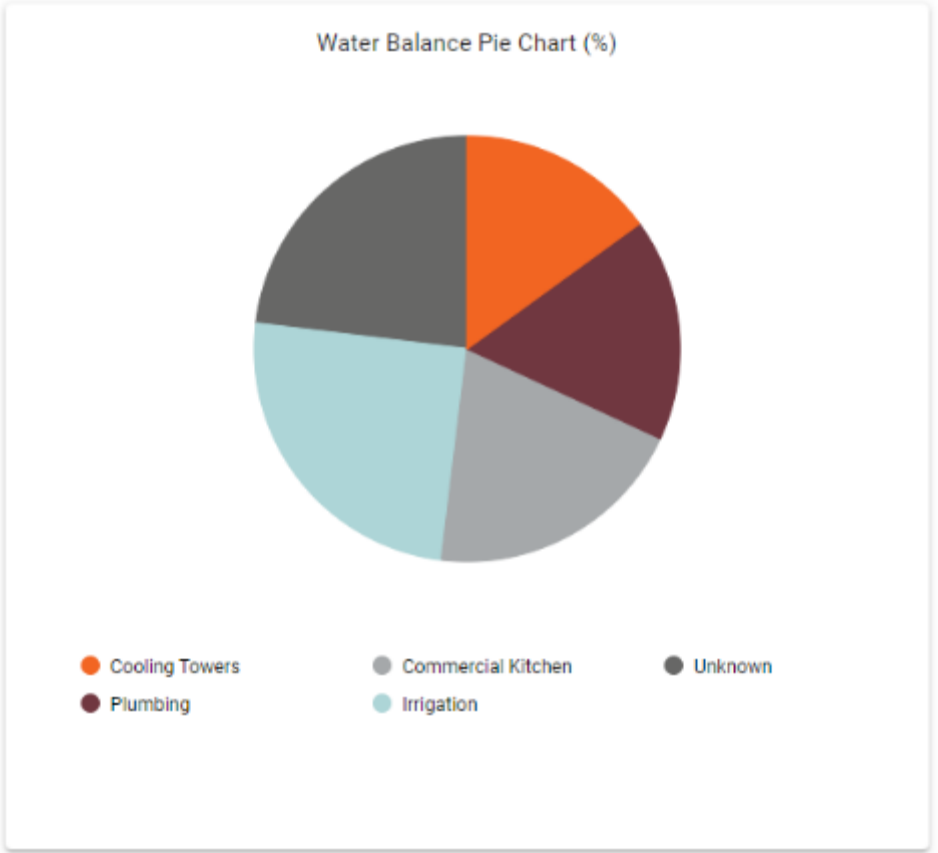
Water Efficiency

Resources on water efficiency provided by FEMP:

- Comprehensive water evaluation process
- Water balance analysis
- Water efficient technologies
- Operations and maintenance practices
- Leak detection process

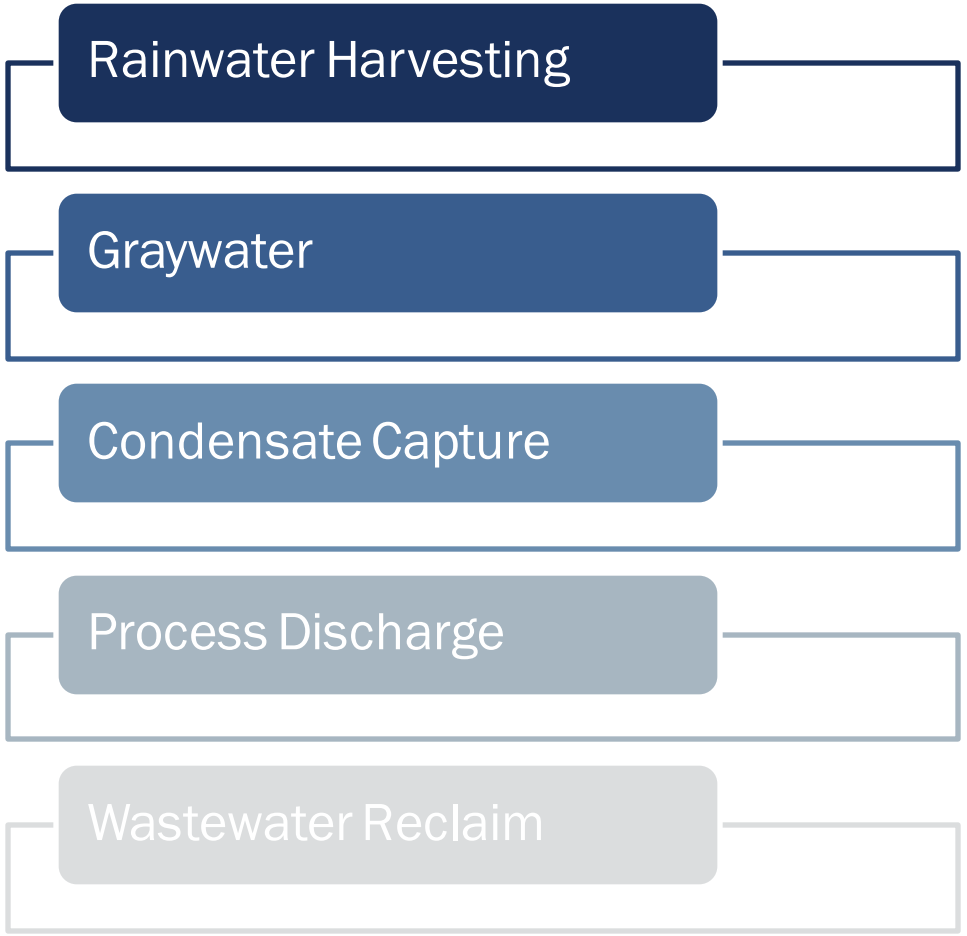
Water Balance Tool



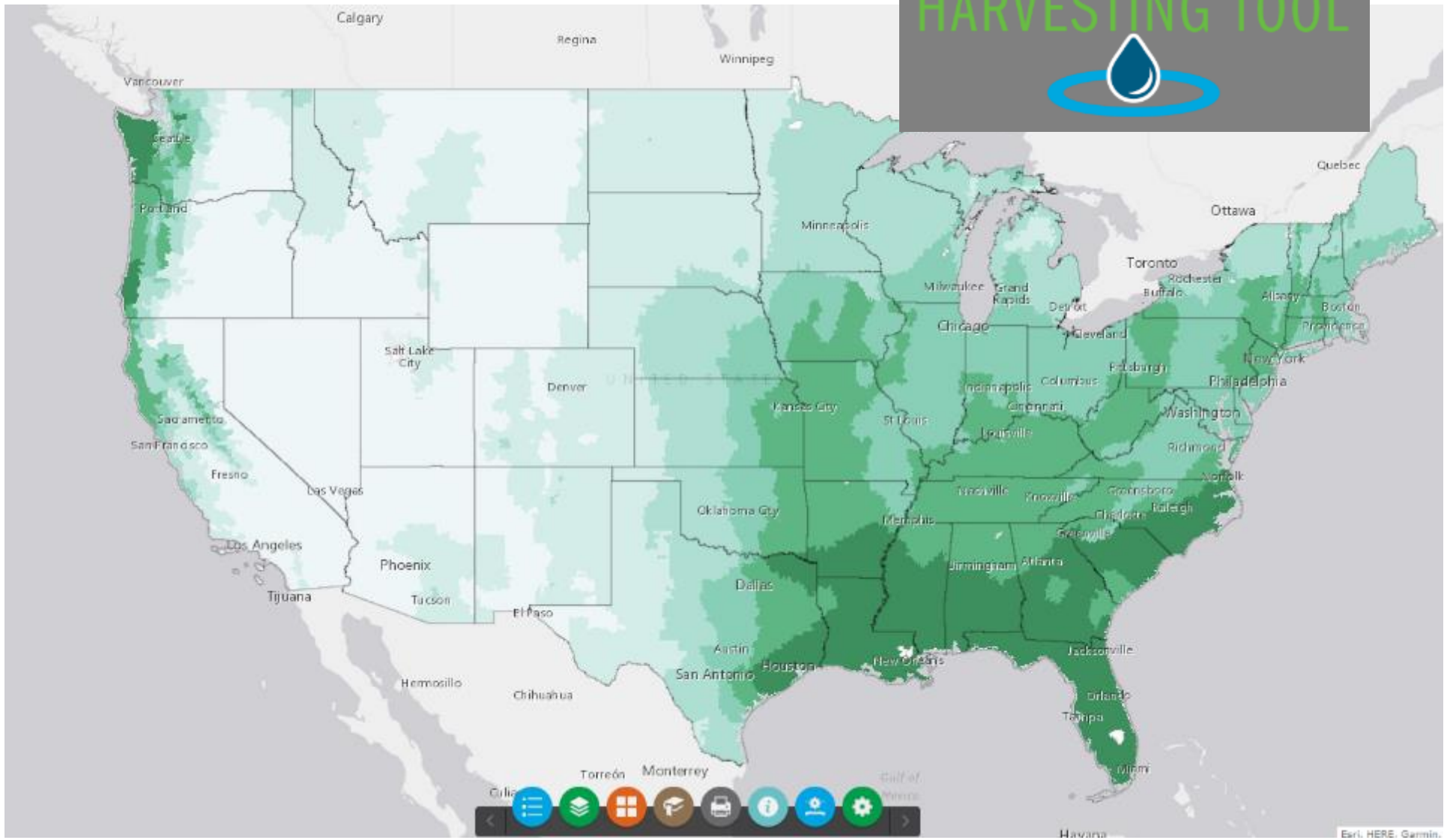


Alternative Water

Alternative water is sustainable sources of water not supplied from fresh ground or surface water.



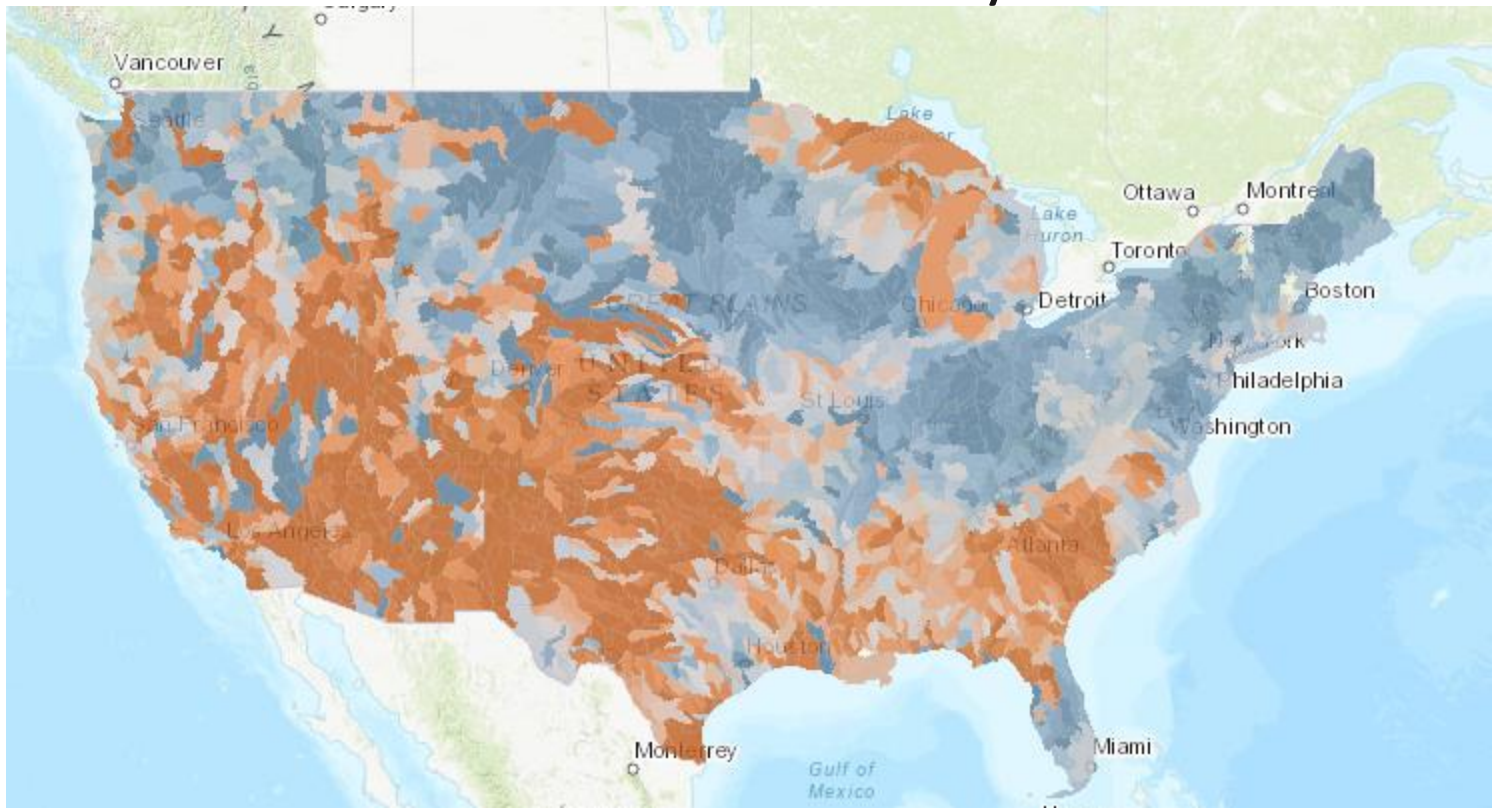
FEMP Rainwater Harvesting



https://www.energy.gov/femp/rainwater-harvesting-tool

Water Vulnerability

- Water Vulnerability Assessment Tool: interactive decision support tool providing long term annual and seasonal trends in water availability across the US



Website: https://www.energy.gov/femp/water-efficiency-federal-buildings-and-campuses

FEMP Water Management Resources

Water Efficiency in Federal Buildings and Campuses

- https://www.energy.gov/eere/femp/federal-energy-management-program

Water Evaluation Data Tool and Water Balance Tool

- https://www.energy.gov/eere/femp/downloads/water-evaluation-tools

Alternative Water Tools

- https://www.energy.gov/eere/femp/alternative-water-sources-maps

Water Vulnerability Assessment Tool:

- https://pnnl-gis.maps.arcgis.com/apps/dashboards/3b1e28bf76b84710955f26d586c1e962

Net Zero Water Strategies

- https://www.energy.gov/femp/net-zero-water-building-strategies

Water Project Screening Tool

- https://www.energy.gov/eere/femp/downloads/water-project-screening-tool

Water Efficiency Best Management Practices

- https://www.energy.gov/eere/femp/best-management-practices-water-efficiency

Water Efficient Technology Opportunities

- https://www.energy.gov/eere/femp/water-efficient-technology-opportunities

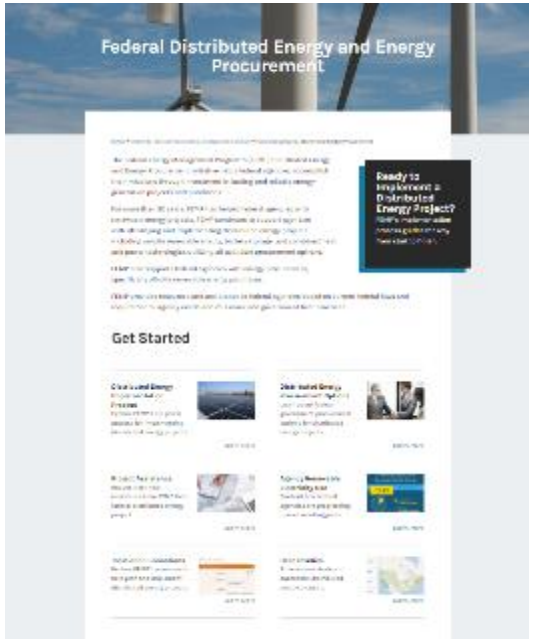
FEMP 50

Federal Energy Management Program

Carbon Pollution-Free Electricity Procurement

FEMP's Distributed Energy Program

FEMP's Distributed Energy (DE) Program facilitates the implementation of cost-effective on-site renewable energy, energy storage, and combined heat and power technologies for federal agencies.



[FEMP's Distributed Energy Program Website]

[FEMP's Distributed Energy Program Factsheet]

[FEMP's Distributed Energy Implementation Process Website]

CFE Basics

Terminology

- **Carbon pollution-free electricity (CFE):** Electrical energy produced from resources that generate no carbon emissions including marine energy, solar, wind, hydrokinetic (including tidal, wave, current, and thermal), geothermal, hydroelectric, nuclear, renewably sourced hydrogen, and electrical energy generation from fossil resources to the extent there is active capture and storage of carbon dioxide emissions meeting EPA requirements. (from E.O. 14057, Section 603d)
- **Energy Attribute Certificate (EAC):** "EACs are a tradeable, market-based instrument that represents the legal property rights to all non-power attributes of CFE generation. The EAC owner has exclusive rights to make claims about "using"… the electricity associated with that EAC. An EAC is issued for every megawatt-hour (MWh) of electricity generated and delivered to the electric grid from a CFE resource." Renewable Energy Certificates are a common type of EAC. (from Environmental Protection Agency)

Executive Order 14057

Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability
(12/8/2021)

Implementing Instructions for Federal Agencies

What Technologies are Considered CFE?

- Solar
- Wind
- Hydroelectric
- Nuclear
- Geothermal
- Renewably-sourced hydrogen
- Generation from fossil resources with active carbon capture and storage
- Marine and hydrokinetic

Eligibility Requirements for Purchased CFE and EACs

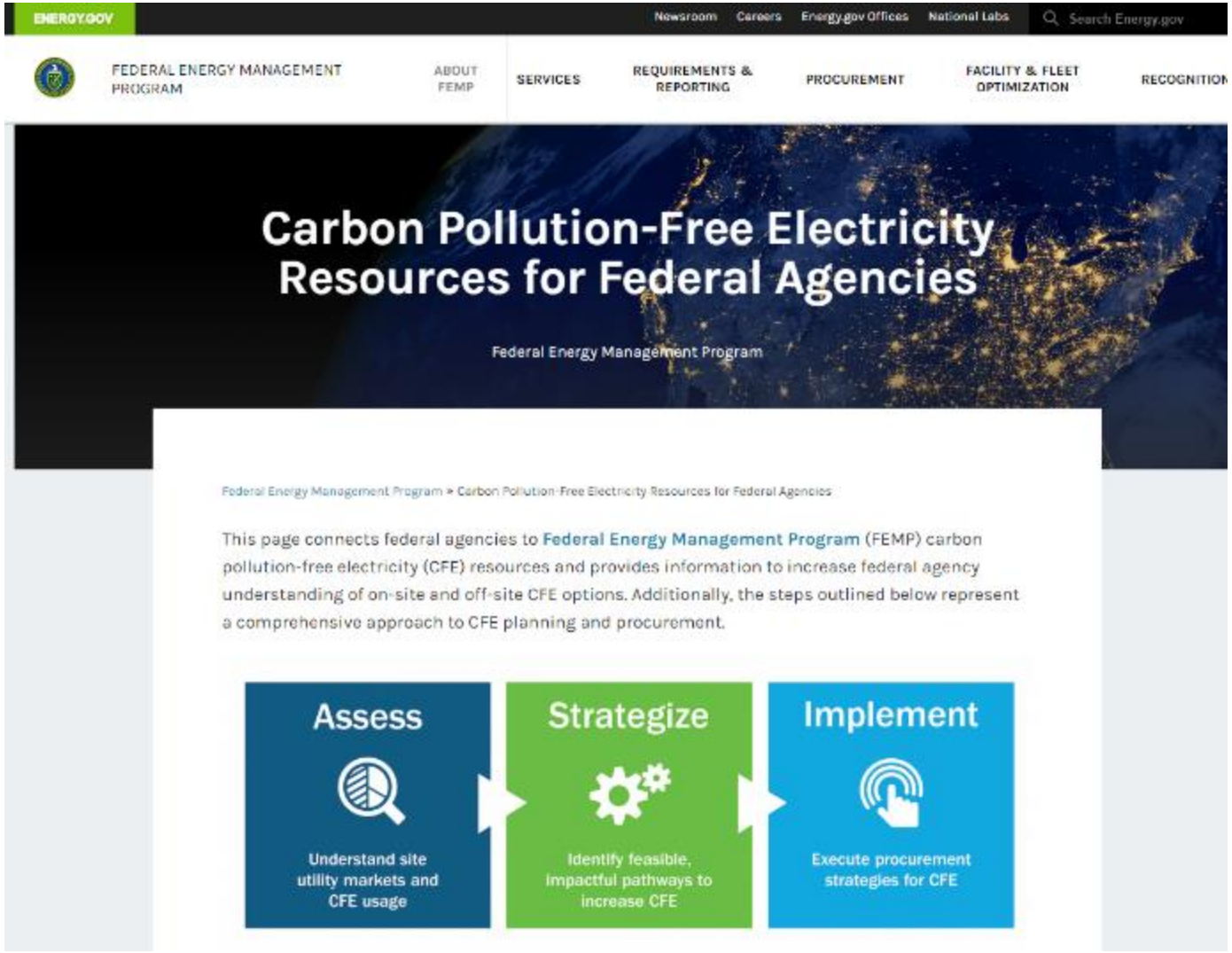
	GENERATING TECHNOLOGY	BALANCING AUTHORITY	FY 2022+ PLACED IN SERVICE
Definition	Produced by zero-carbon sources	Delivered to the same Balancing Authority region where agency load is sited	Generated by resources placed in service after October 1, 2021
Rationale	Eliminating emissions from electricity aligns with the Executive Order 14057 ambition	• Increased impact • Benefits from decarbonization shared across the country	• Procurement should be additive to grid decarbonization efforts
Exceptions	Existing EPACT 2005 Resources		
		Bridge EACs*	
			• Replacement EACs • Grid-supplied CFE

*An agency may elect to purchase bridge EACs up to the contracted quantities of megawatt hours during the period between execution of a contract for CFE generation and the date when the CFE generation is placed in service

Federal CFE Planning

Strategic CFE Planning Framework & Resources

- Supports the development of a comprehensive strategy to meet CFE goals, by incorporating:
  - Energy & water conservation measures
  - Resilience needs
  - Electrification plans and future load projections



Carbon Pollution-Free Electricity Resources for Federal Agencies

Strategic CFE Planning Framework: Assess

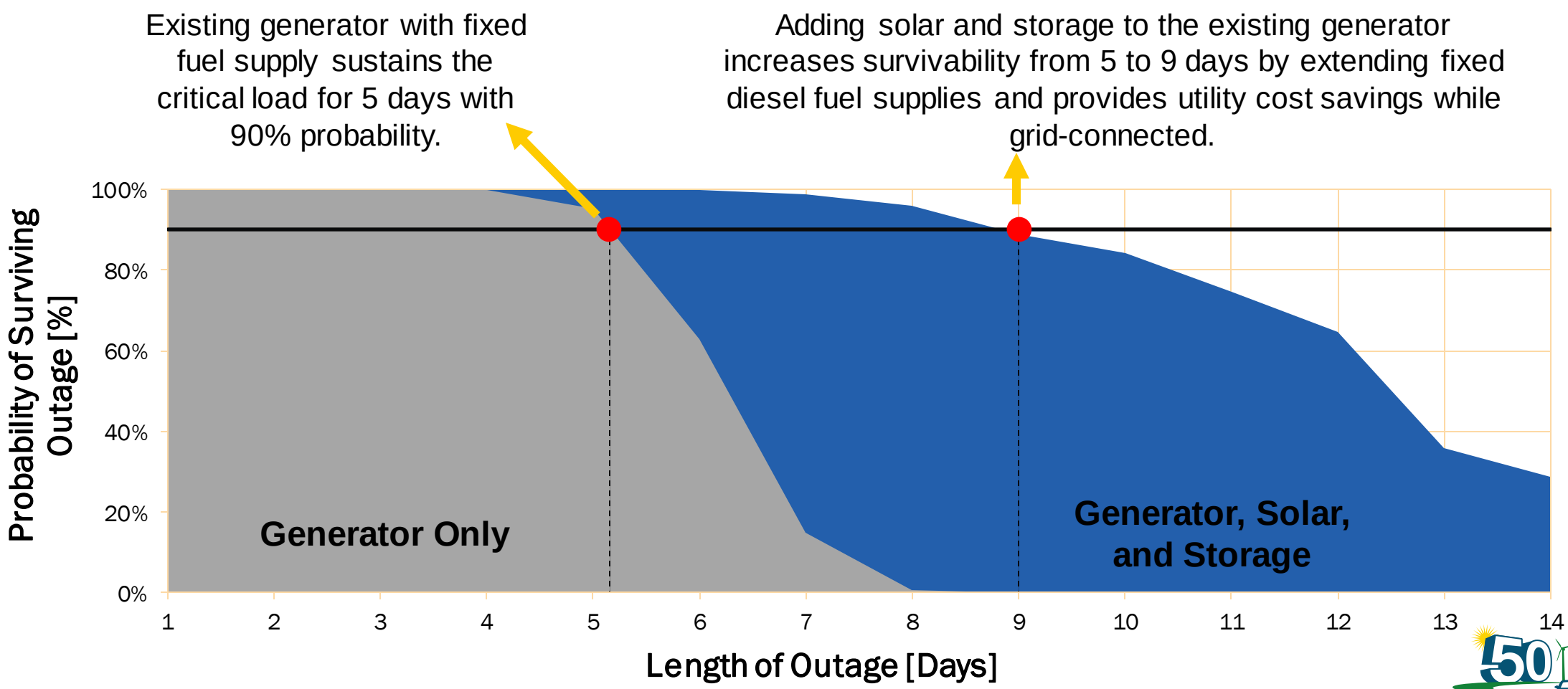
- Understand agency electric utility regulatory environment
  - Describes how rules and options regarding electricity purchases will vary depending on a site's geographical location
- Identify balancing authorities
  - ZIP-to-balancing area look-up tool (request here)
- Review identified efficiency opportunities
- Consider future load
  - Fleet electrification, data centers, supercomputers
  - EV-U finder: Connect with EV charging utility partners & identify available incentives

Strategic CFE Planning Framework: Strategize

- Evaluate potential for additional on-site CFE
  - Inventory available real property
  - Resources for project development:
    - Distributed energy interconnection checklist
    - REopt: technoeconomic analysis tool for on-site technologies
    - Process for planning & implementing federal distributed energy projects
  - Resources for project procurement:
    - On-site project financing options
    - Performance contracting pages: ESPC, ESPC Energy Sales Agreement & UESC
- Identify current electricity procurement strategy
  - Options by regulatory market
- Understand options for off-site CFE procurement
  - Off-site project financing options
  - CFE program availability map

CFE Resilience Benefit

CFE plus battery storage may improve microgrid power quality and extend utility outage survivability by conserving fixed diesel fuel supplies



Strategic CFE Planning Framework: Implement

- Execute strategies to increase CFE:
  - Generation on-site
  - Procurement in vertically integrated markets
  - Procurement in retail electric choice markets
- Report CFE usage
  - Annual energy reporting guidance
- Measure progress

Tools & Resources

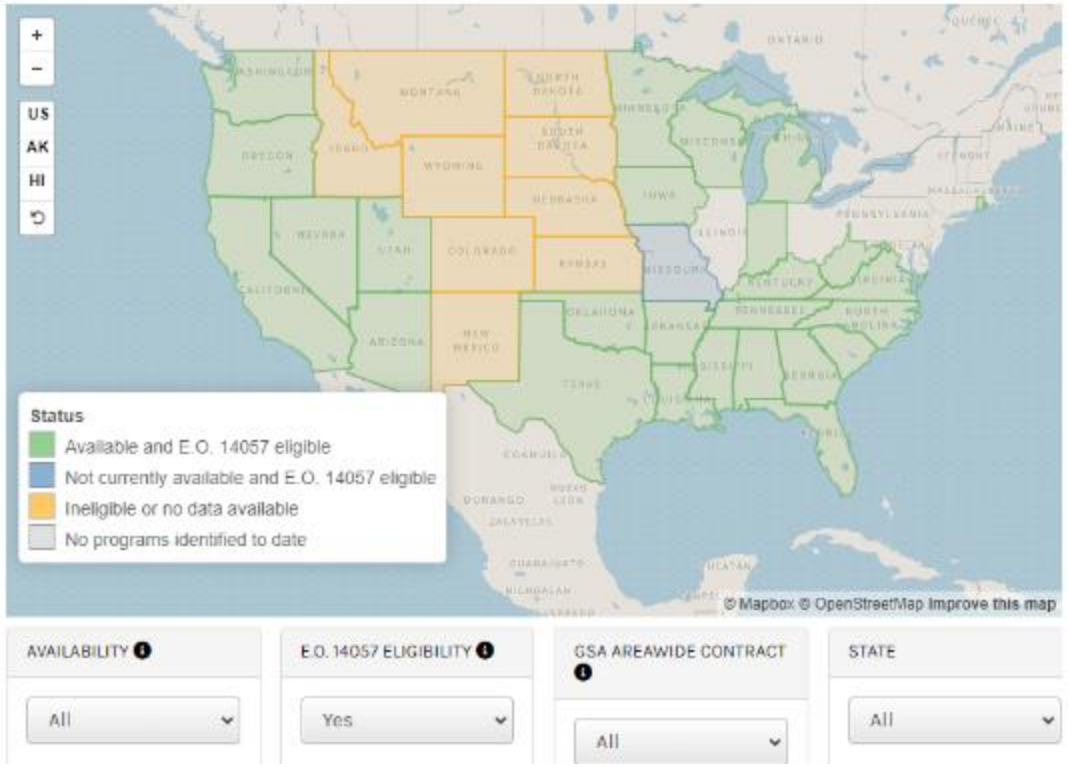
CFE Program Availability Map

- FEMP has published a searchable database of clean energy purchasing programs offered by vertically integrated utilities
- This database currently includes 113 programs resulting from review of 68 utilities representing the preponderance of federal agencies' electricity consumption in vertically integrated markets in the United States.
  - Filter by state, program availability, E.O. 14057 eligibility, and existing areawide contract to identify programs of interest.
  - Select a given program for additional information (e.g., program website, contract term length).

All information included in the database is to the best of our knowledge and is subject to change over time. Agencies should confirm program availability and E.O. 14057 eligibility with their serving utility.

CFE Program Availability Map: Filter Criteria

- **E.O. 14057 Eligibility (Default shows eligible options)**
  - **Programs must meet all requirements:**
    - Technology meets definition of CFE
    - Generator was placed in service on or after October 1, 2021
    - CFE is delivered to the same balancing authority as the federal agency
    - Energy attribute certificates (EAC) are obtained and retired by the customer or on the customer's behalf
- **Availability**
  - **Available-** Agencies can enroll in available options.
  - **Not Currently Available-** Program is either fully subscribed or enrollment has not yet begun.
- **Areawide Contract (AWC)-** Agencies may take electric service via a Task Order under the GSA AWC.



Useful Resources

- FEMP's Utility Carbon Pollution-Free Electricity Program Availability Map
- FEMP's Carbon Pollution-Free Electricity Resources
- FEMP's Off-Site Clean Energy Procurement Options
- FEMP's On-Site Distributed Energy Procurement Options
- CEBA's Green Tariff Update
- OMB Memorandum M-22-06 (on E.O. 14057)
- E.O. 14057 and Implementing Instructions

What other resources on carbon pollution-free electricity procurement would you like to see in the future?

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Nobody has responded yet.

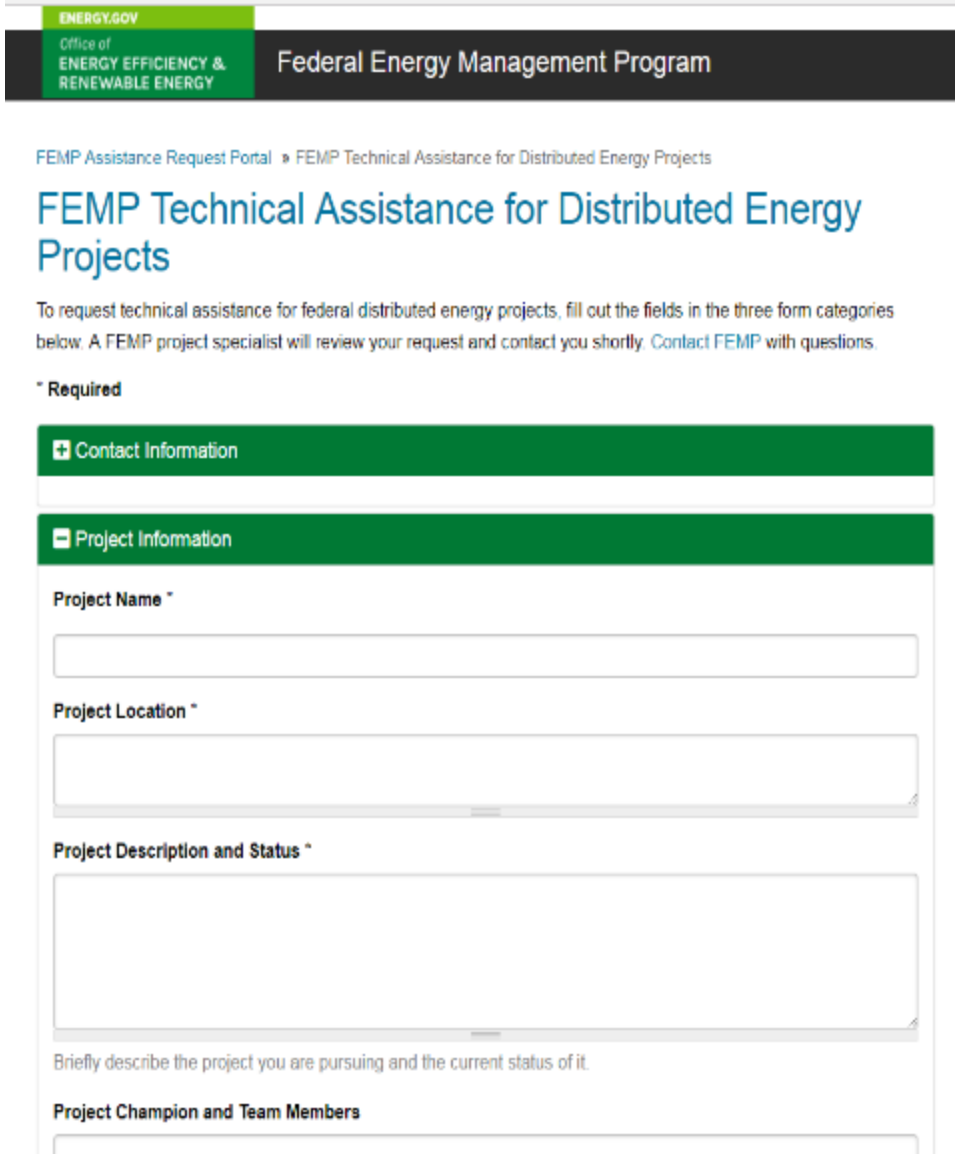
Hang tight! Responses are coming in.

FEMP Resources

- Project guidance and discussions with Federal Project Executives (FPEs)
- Technical assistance provided by DOE National Labs
- Tailored training for agencies

FEMP Assistance Request Portal

Submit questions or requests for support through the *(https://www7.eere.energy.gov/femp/assistance/)*



Thank You!

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50 Years of Federal Energy Management