SEPA Resources to Advance Grid Resilience

NASUCA Mid-year conference

July 20, 2026 I Minneapolis, MN

Smart Electric Power Alliance

Agenda

➔ **Welcome & SEPA 101**

➔ **Advancing Grid Resilience: Insights + Resources**

- *Emerging Resilience Metrics*
- *Wildfire Technology Landscape Report*
- *Valuing Resilience with the NSPM for DERs*

Our Vision & Mission

Vision

A clean, affordable, and resilient energy system for all.

Mission

SEPA works at the **intersection of technology, policy, and programs** to identify and share solutions to the biggest challenges facing utilities, their partners, and policymakers as they strive to deliver **clean, affordable,** and **resilient** energy to **all customers**.

SEPA is powered by our members

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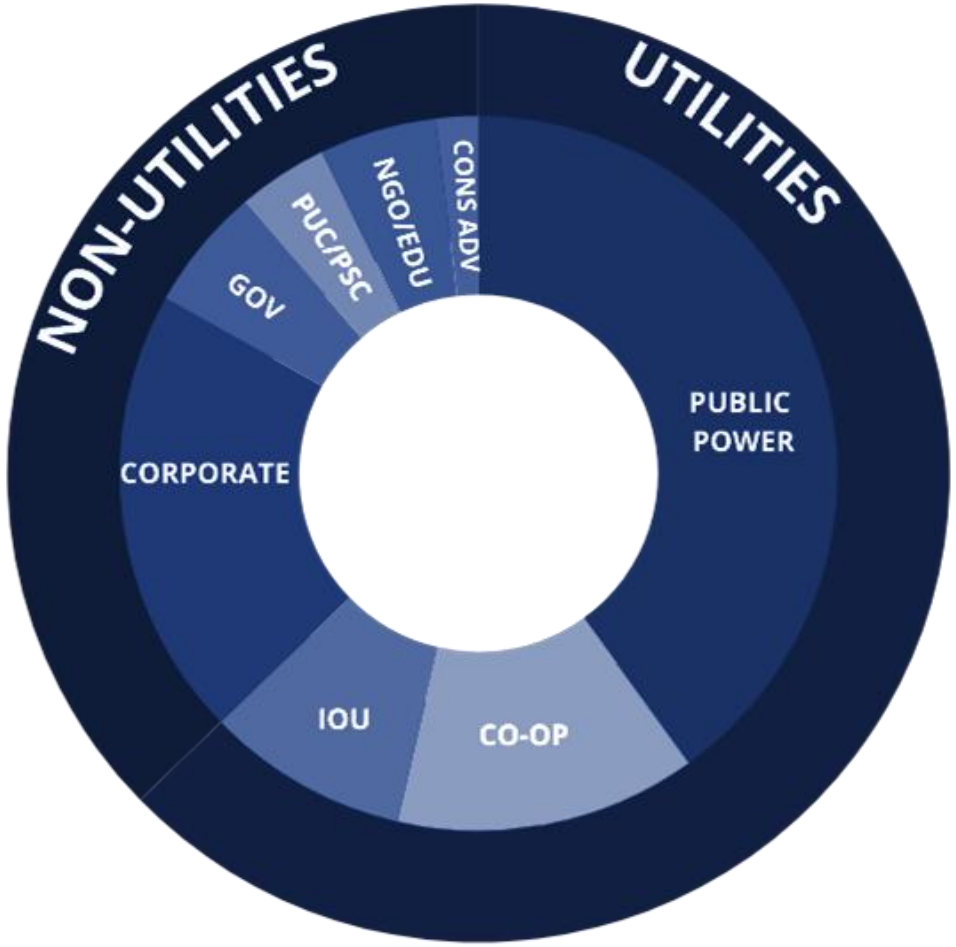
Your member community represents *nearly 1,000* organizations representing the full spectrum of the energy industry



Strategic Focus Areas

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Grid

The grid is the backbone of the clean energy transition. Modernizing it with advanced technologies and customer-centric programs is critical to ensuring resilience and meeting evolving energy needs.

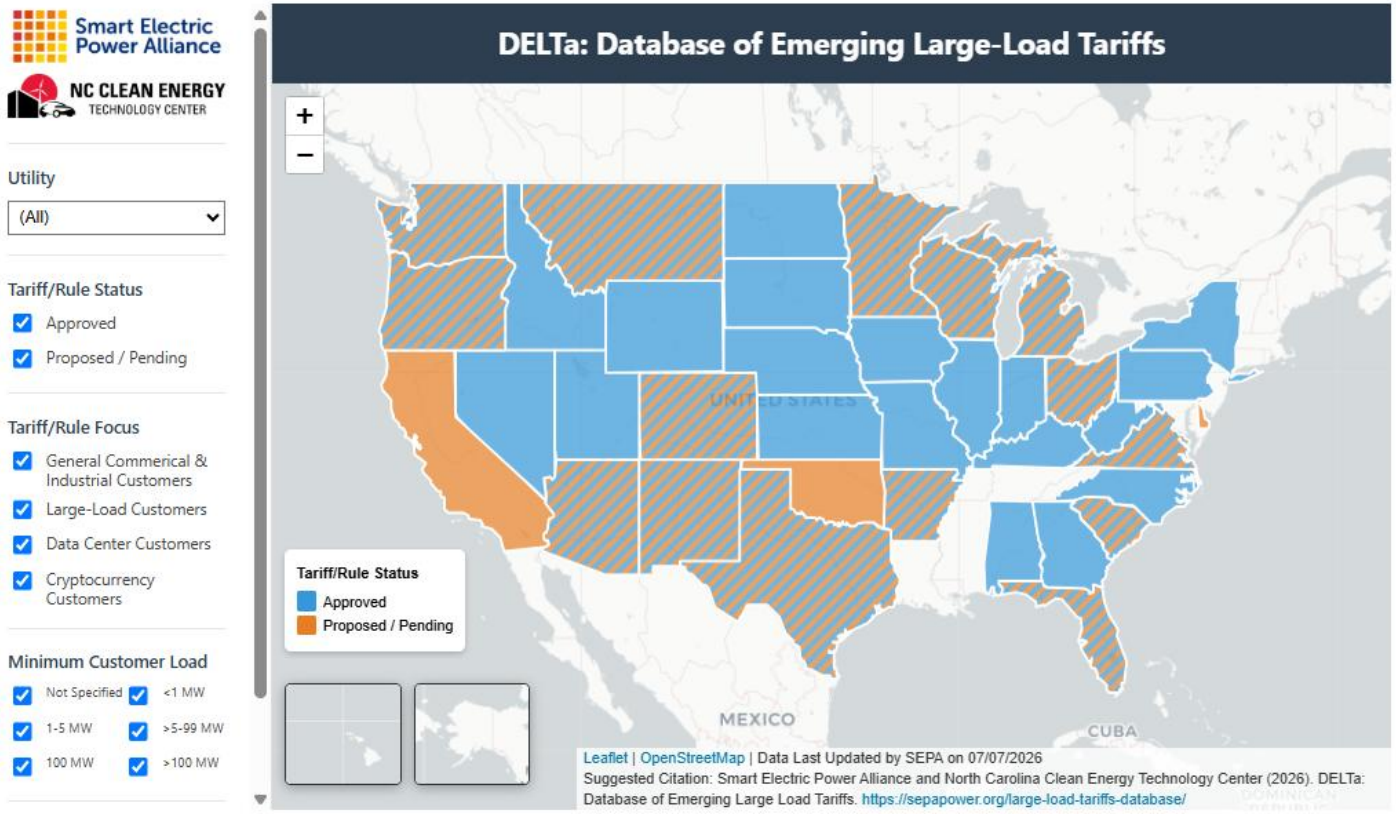
Growth

As electricity demand rises with increased electrification, managing this growth is essential. SEPA works with stakeholders to implement strategies that meet new demand reliably, sustainably, and affordably.

Globe

By leveraging domestic and international innovations, SEPA equips members with scalable solutions to accelerate progress efficiently.

Informing Policy Development



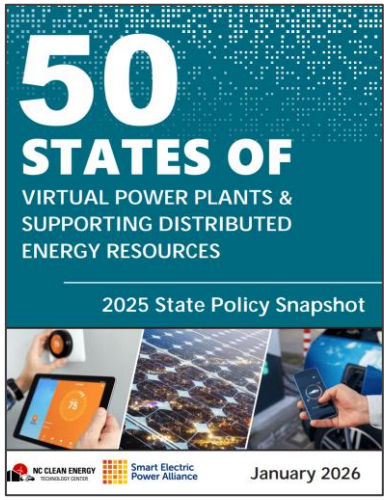
DELTa allows us to understand emerging trends across state-level action on large-load tariffs. DELTa includes:

- **104**: Total number of approved and proposed large-load tariffs and service rules.
- **37**: Number of states with one or more large-load tariffs or service rules (approved + proposed).
- **50%**: Portion of large-load tariffs and service rules (approved + proposed) that define applicability using a threshold of 50 MW or a higher value up to 150 MW
- **29**: Number of large-load tariffs approved by state utility commissions in 2025, signaling quickly-rising interest from utilities, regulators, policymakers, and the public.

Note: These statistics were last updated on June 30, 2026.

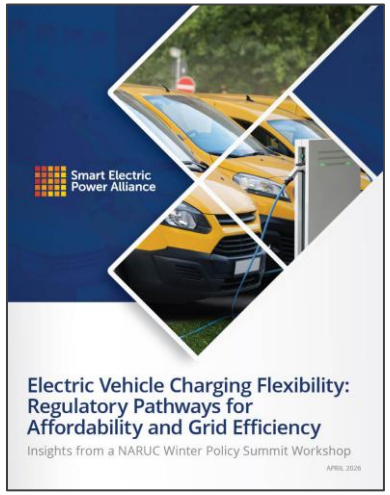
Access at: https://sepapower.org/large-load-tariffs-database

Member Collaborations at the Center

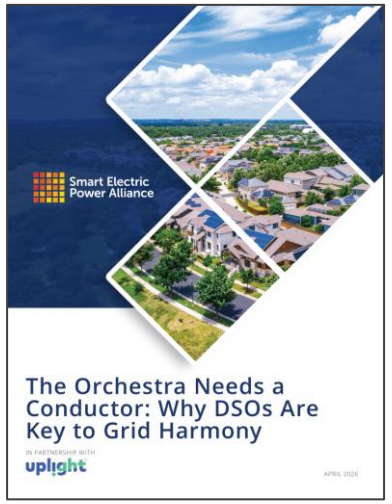


- **SEPA + the NC Clean Energy Technology Center** track key VPP state and utility actions in a **50 States of VPPs annual report** and quarterly **blog series**.

- **SEPA + Rhizome's report** identifies utility resilience planning trends and progress for climate-ready distribution systems, including case studies: **Entergy New Orleans**, **Consumers Energy**, **Hawaiian Electric Companies** and **Vermont Electric Cooperative**.



- **SEPA + NARUC**'s **brief** identifies the top policy and regulatory actions to enable EV charging flexibility across residential and commercial sectors, enabling more affordable and efficient system operations.



- **SEPA + Uplight's report** illustrates how the DSO model can improve grid reliability, incorporate distributed energy resources, and reduce long-term costs for customers.

Working Groups: SEPA's Mission in Action

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Peer Collaboration Across Diverse Communities: 350+ Member Organizations, 1500+ Individual Members

SEPA Working Groups
Customer Programs
Cybersecurity
***New*: Distribution System**
***New*: Energy Affordability & Access**
Grid Interoperability & Architecture
***New*: Resilience** (expanded focus areas)
Transportation Electrification (expanded sub-committees)

Working Groups: Promoting Information Exchange

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Resilience Working Group

Objective

Identify + advance actionable approaches for strengthening grid, community, and customer resilience.

Focus areas

Emergency Response and Resilience Planning (Planning)

Resilience Metrics and Incentive Mechanisms (Costs)

Microgrids and Energy Storage Technology (Technical)

Recent Meetings

April
Wildfire Planning

May
Community Resilience Metrics

June
Resilience Planning

Working Group Deliverables

Beyond the Baseline: Measuring Resilience

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Beyond the Baseline Framework

RESILIENCE

Withstand, respond to, and recover from major power disruptions

=

RESISTANCE

MY SAIFI

Multi-year SAIFI

+

RECOVERY

MERT

Major Event Restoration Time

Two simple metrics — MY SAIFI (resistance) and MERT (recovery) — measure how well a utility prevents outages during major events and how fast it restores power after one. Built on data utilities already collect and standards regulators already reference.

Third-Party Validation — Vermont DPS, June 2026

Vermont's Department of Public Service formally recommended MY SAIFI and MERT as the system-wide resilience metrics for updating electric utility reporting under Rule 4.900 — citing SEPA and Baringa's framework directly.

Case No. 25-0339-PET · Filed June 5, 2026

Wildfire Technology Landscape Framework

Key Findings

- **Embedding wildfire technology** into planning, operations, and response delivers measurable results.
- **Better data is the foundation** on which everything else depends on.
- **Minimum inputs for risk modeling**: GIS accuracy, current asset records, and full-territory coverage.
- **Enabling and monitoring technologies** are a growing share of wildfire mitigation investment.

Wildfire Technology Landscape Framework

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Figure 1. Six-Stage Wildfire Reduction Framework

Source: Pacific Northwest National Laboratory (PNNL). (2026). Current Best Practices on Wildfire Risk Reduction for Electric Transmission and Distribution Systems. Adapted and expanded by SEPA with input from technology partners and advisors.

Wildfire Technology Landscape Framework

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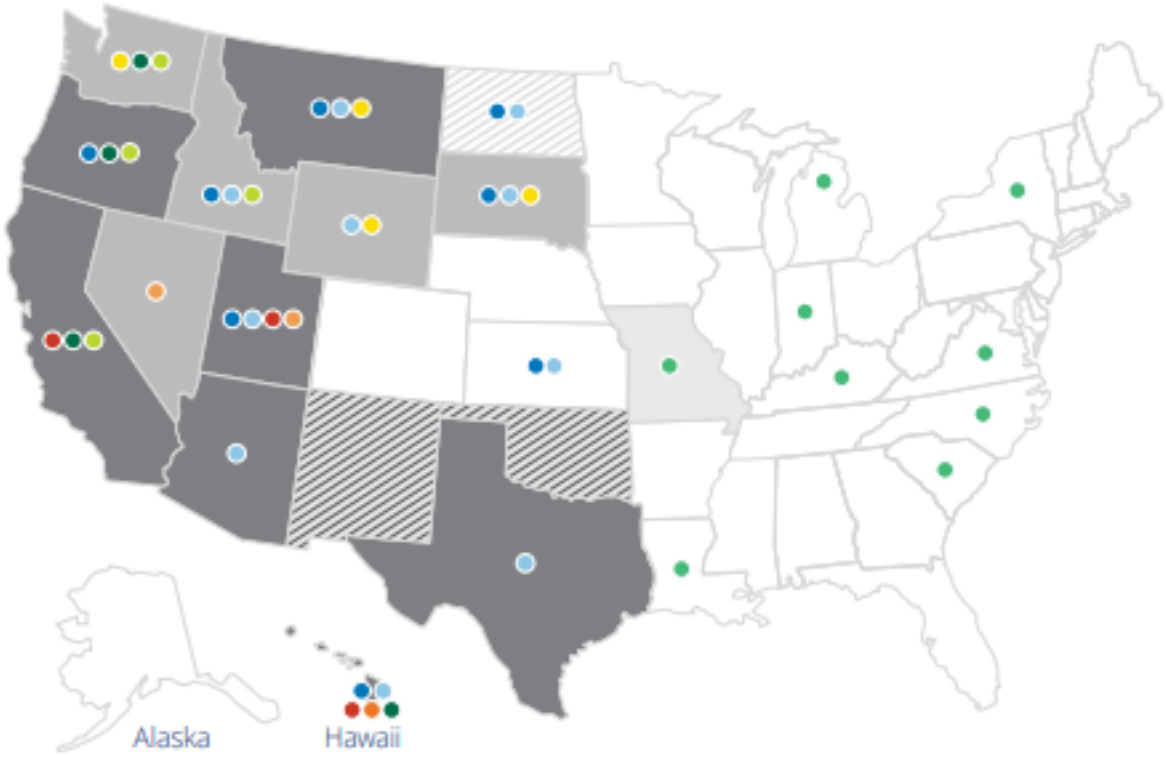
Figure 3. Legislative and Regulatory Frameworks Governing Utility Wildfire Risk by State



WMP Requirement Status

- WMP Mandatory—All Utilities (7 states)
- WMP Mandatory—Tiered (5 states)
- WMP Mandatory—IOUs (1 state)
- WMP Legislation Proposed—Did Not Pass (2 states)
- WMP Voluntary (1 state)
- No WMP Policy (35 states)

Special Provisions

- Liability Standard (10 states)
- Caps on Damages (7 states)

Cost Recovery Mechanisms

- Wildfire Backstop Fund (3 states)
- WMP Surcharge (3 states)
- WMP Rate Proceeding (4 states)
- Securitization—WMP-specific (4 states)
- Securitization—Broadly applicable to hazards (9 states)
- Balancing Account (4 states)

Sources: NARUC (2025). Wildfire Workbook for Utility Regulators; Pacific Northwest National Labs (2026). Wildfire Mitigation Plans Database; Compiled and adapted by SEPA (2026). Note: States may have multiple overlapping frameworks.

Wildfire Technology Landscape Framework

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What Strong Utility Wildfire Mitigation Plans (WMPs) Include

1. **Specific and Verifiable Outcomes:** Date-verified, event-specific results with counterfactuals tied to a real event is more persuasive than years of projected benefits.
2. **Multi-Year Trend Lines:** A record of tracking ignition metrics with sustained trend lines across multiple years demonstrates a program's success.
3. **How Technologies Work Together:** Connected technologies that share data produce more risk reduction and cost-effectiveness.
4. **CapEx and OpEx Delineation:** Clear cost classification gives regulators and oversight bodies what they need to evaluate and approve investments.
5. **Risk Mapping Before Selecting Technology:** A circuit-level risk ranking by asset drives every technology deployment decision.
6. **Investment Justification Across Multiple Traditional Utility Benefit Streams:** Investments that address wildfire, wind, ice, and reliability simultaneously distribute costs across multiple hazards.

Technology-Related Questions to Ask Utilities

1. **What evidence shows that deployed technologies are reducing wildfire risk**, and how do you track that over time?
2. **What trends over time show how wildfire risk and key metrics are changing**, and what role have technology investments played?
3. **How are wildfire technologies used together and integrated across systems**, and how does that support risk reduction and operational decision-making?
4. **How are technology investments categorized between capital and operational expenditures**, and how does that support cost transparency and review?
5. **How is risk from wildfire disruption assessed**, and how does that inform where and how technologies are deployed?
6. **How do technology investments address multiple traditional utility benefit streams**, and how is that reflected in investment planning and prioritization?

Valuing Resilience: NSPM for DERs

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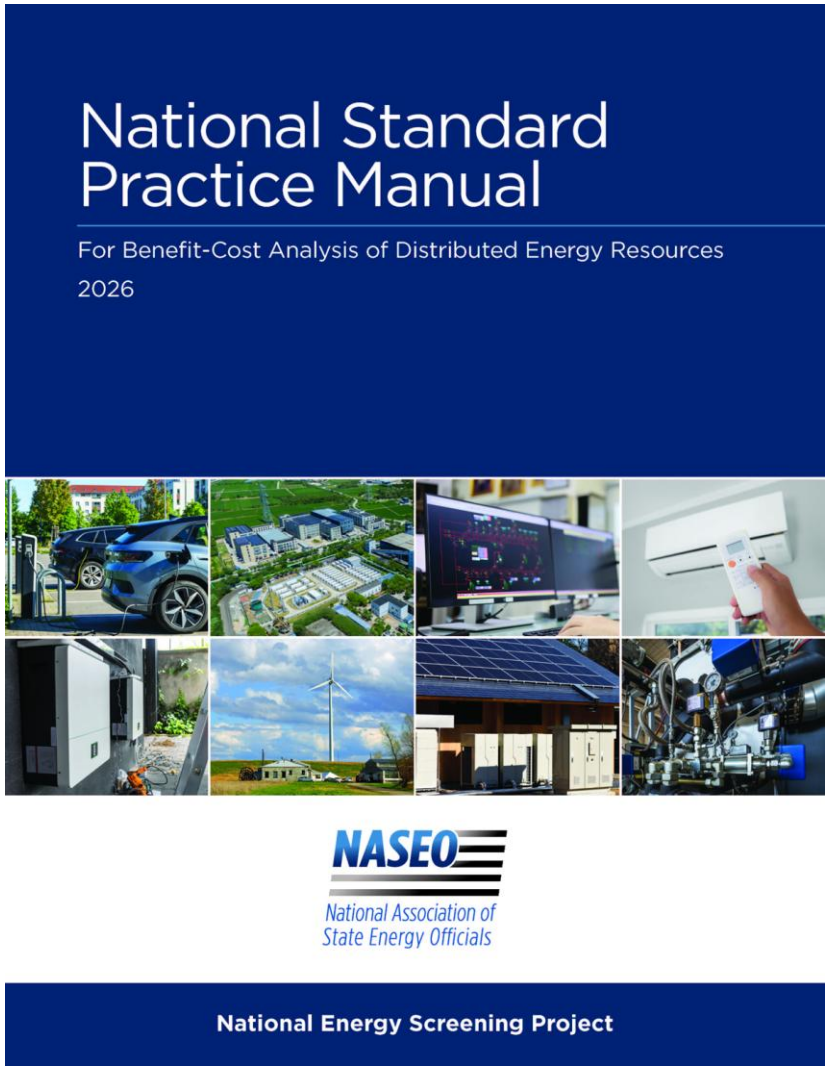

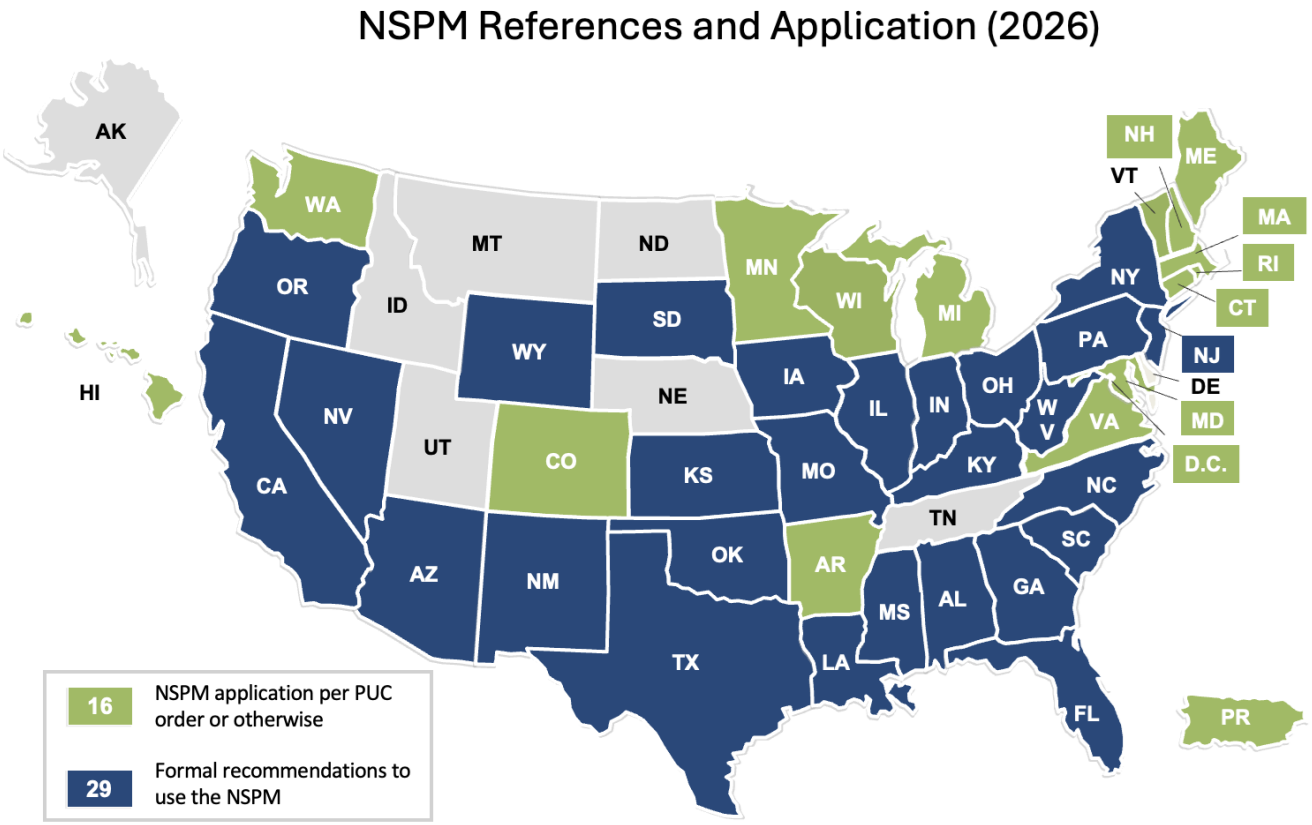

Valuing Resilience: NSPM for DERs

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PUBLIC UTILITIES FORTNIGHTLY
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August 2026 Issue: "Measuring What Matters with the New NSPM: A Consistent DER Valuation Framework" by **NASEO + SEPA**

Table 6-15. Reliability and Resilience Impacts by DER

Impact	Category	EE	DR	DG	DS	ELEC
Reliability	Electric Utility System	●	●	●	●	●
	Gas Utility System	●	●	NR	NR	●
Resilience	Electric Utility System	NR	NR	NM	NM	NM
	Gas Utility System	NR	NR	NR	NR	NM
	Host Customer	●	NR	●	●	NR
	Societal	●	NR	●	●	NR

● = typically a benefit for this DER type; ● = typically a cost for this DER type; ● = either a benefit or cost for this DER type, depending upon the application of DER; NM = typically not material; NR = not relevant for this DER type.

- **Reliability:** Focuses on the value of DERs in preventing routine, short-term outages caused by factors like load fluctuations, fuel availability, and minor storms.
- **Reliability Metrics:** Utilities typically measure reliability using standard industry metrics such as SAIDI, SAIFI, and CAIDI, which, when combined with customer survey data, help estimate the value of lost load.
- **Resilience:** Refers to the capacity to prepare for, adapt to, and recover from major disruptive events.
- **DER Value in Resilience:** DERs provide resilience by supporting residential customers, businesses, and critical infrastructure, with microgrids serving as a primary example.

SEPA Membership Unlocks…

- **Organization-wide access** to SEPA's research, case studies, webinars, and technical resources
- **Networking, collaboration & education** via SEPA's events, Working Groups, and our online learning program, SEPA Academy
- **Expert guidance** from SEPA's subject-matter experts
- **Visibility & recognition** through speaking opportunities, research collaborations, blogs, member spotlights, and more

Connect with SEPA

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