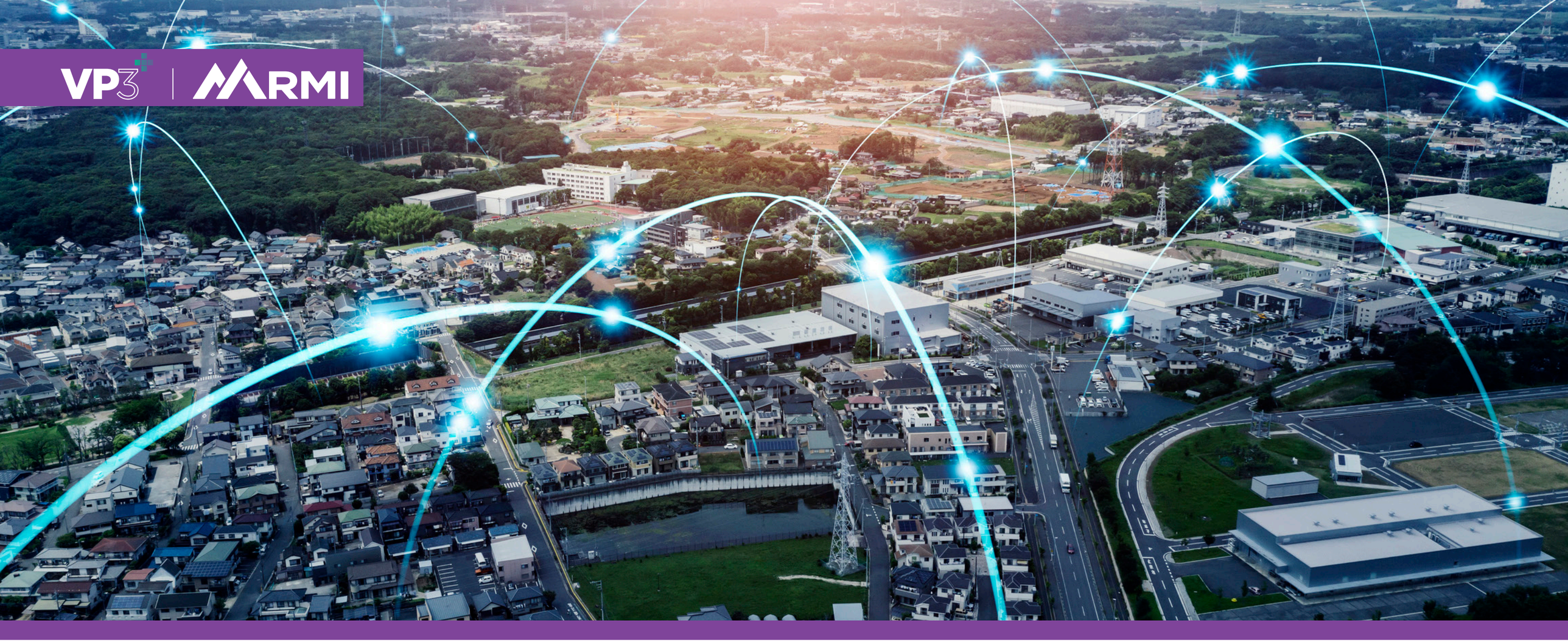


VP3 Progress Report

APRIL 2025

From Awareness to Action

Open Letter from VP3

VP3 Community,

If 2023 was the year of VPP awareness, 2024 was a year of VPP action! Ten state legislatures introduced VPP bills, regulators in ten states and Washington, D.C., advanced VPP policy, and utilities in 34 states and Puerto Rico initiated or expanded VPPs. Beyond policy and utility action, the VPP industry, led by VP3 members, made notable partnerships, announcements, and changes that are transforming the industry!

VP3 is proud of its role in catalyzing industry and changing VPP policy. In 2024, we helped drive change by connecting the VPP industry, developing VPP research, and engaging policymakers

This report provides an overview of VPP industry progress in 2024 alongside VP3 activities that have made these changes possible.

We look forward to continuing our work in 2025 to keep the momentum, accelerate change, and scale the benefits VPPs provide to communities and society.

In service,

The VP3 Team

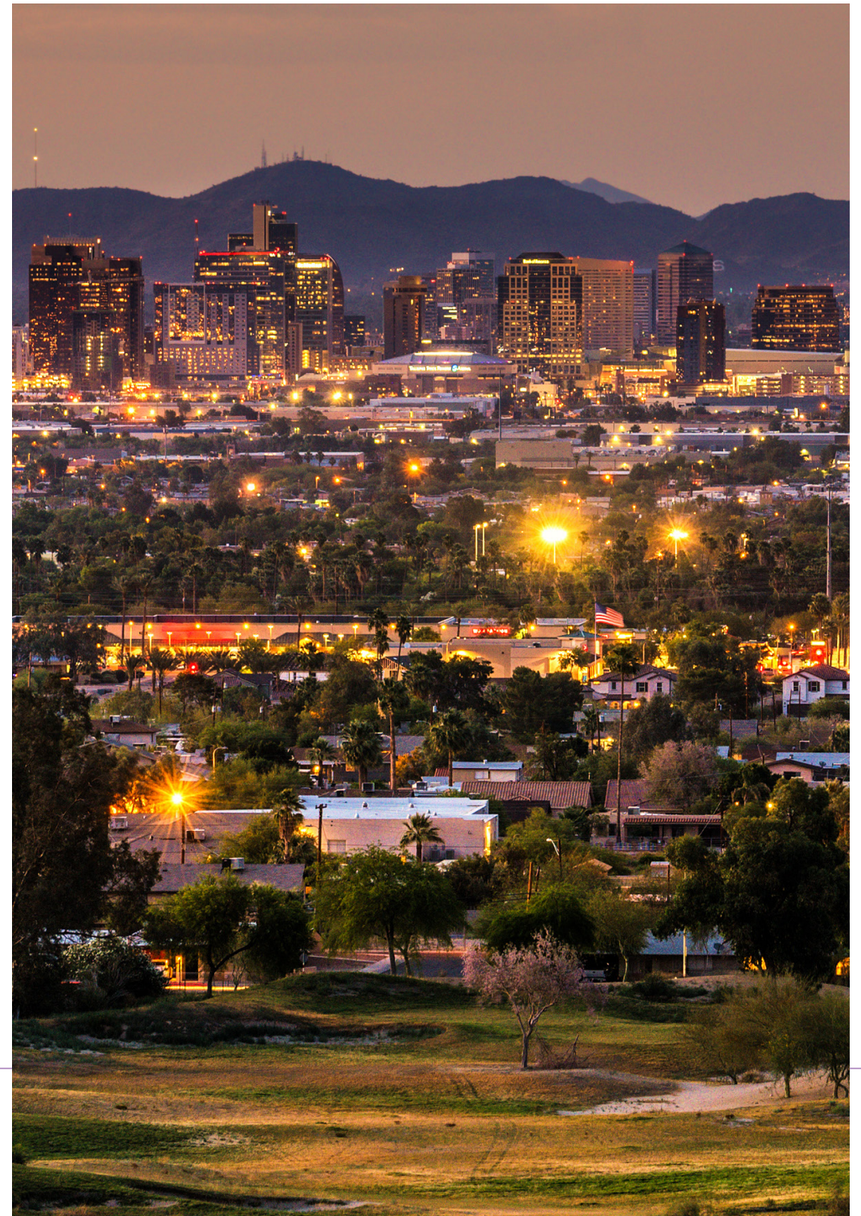


Table of contents

RMI launched VP3 in 2023 to address key barriers and drive VPP market growth.

About us

An initiative housed within RMI and funded by industry leaders spanning the automotive, building, energy service, and software sectors.

Our mission

To catalyze industry and change the necessary policies, regulations, and market rules for VPPs to scale in ways that benefit communities and society.

Our resources

Website: VP3.io
Reliability Brief: Download
VPP Flipbook: Download
VPP Policy Principles: Download

Our members

CPower · EnergyHub · Ford · GM · KrakenTech · Leap · nrg · olivine · Renew Home · sonnen · SPAN · sparkfund · switchDin · uplight · Utilidata · voltus (BETTER ENERGY · MORE CASH)

Together with our members, VP3 advances a long-term VPP industry vision.

STRATEGIC LONG-TERM TARGET FOR VPP INDUSTRY

2035 vision

All US electricity consumers have access to VPP programs.

2030 target outcomes

1

Deploying VPP capacity

Create the market conditions that allow VPPs to provide 160 GW of peak-coincident capacity.

2

Expanding the role of VPPs

Market conditions exist in a growing number of jurisdictions that allow VPPs to provide two or more grid services.

VPP Industry Progress in 2024

Data and insights in this section were made possible through a partnership with market intelligence platform Ohm Analytics.
See Appendix A for additional research insights. Teddy Storrs, Ohm Analytics – VP3, Ohm Analytics, 2025, https://www.ohmanalytics.com/

Utility commissions in 10 states and D.C. took action to expand deployment of VPPs.

REGULATION

Colorado

The Colorado Public Utilities Commission issued its final report on implementing third-party VPPs. Xcel selected a DERMS in December 2024.

Massachusetts

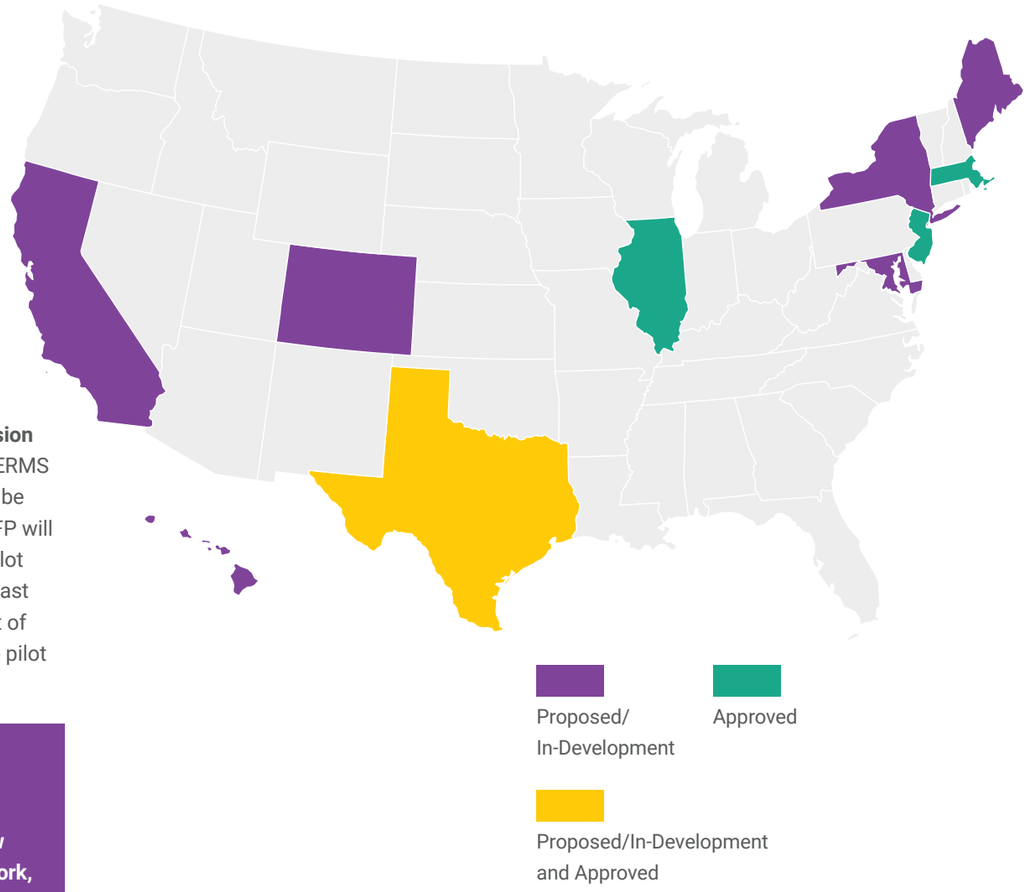
Electric Sector Modernization Plans (ESMP): Utilities will implement a $50 million Grid Services Compensation Fund to promote non-wires alternatives by compensating dispatchable DERs and flexible loads that participate in utility dispatch to provide services.

New Jersey

PSE&G, O&R, and ACE receive approval for their Triennium II Plans. All three utilities will launch a residential smart thermostat DR program and PSE&G will also launch a battery VPP.

Washington, D.C.

Public Service Commission finalizes an RFP for a DERMS software pilot project to be released in 2025. The RFP will fund a VPP or DERMS pilot that will operate for at least two years with the intent of being extended after the pilot ends.



Regulator Engagement

VP3 provided input and feedback to regulators and utilities involved in regulation that was advanced in Massachusetts and New Jersey. Regulators from all other states that proposed regulation (California, Colorado, Hawaii, Illinois, Maryland, Maine, New York, and Texas) spoke with VP3 staff, attended VP3 events, or attended VP3 presentations.

Ohm Analytics

Additional details on regulation industry progress in Appendix A, page 26.

10 legislatures introduced VPP bills and four states passed VPP legislation.

LEGISLATION

Colorado Modernize Energy Systems Act

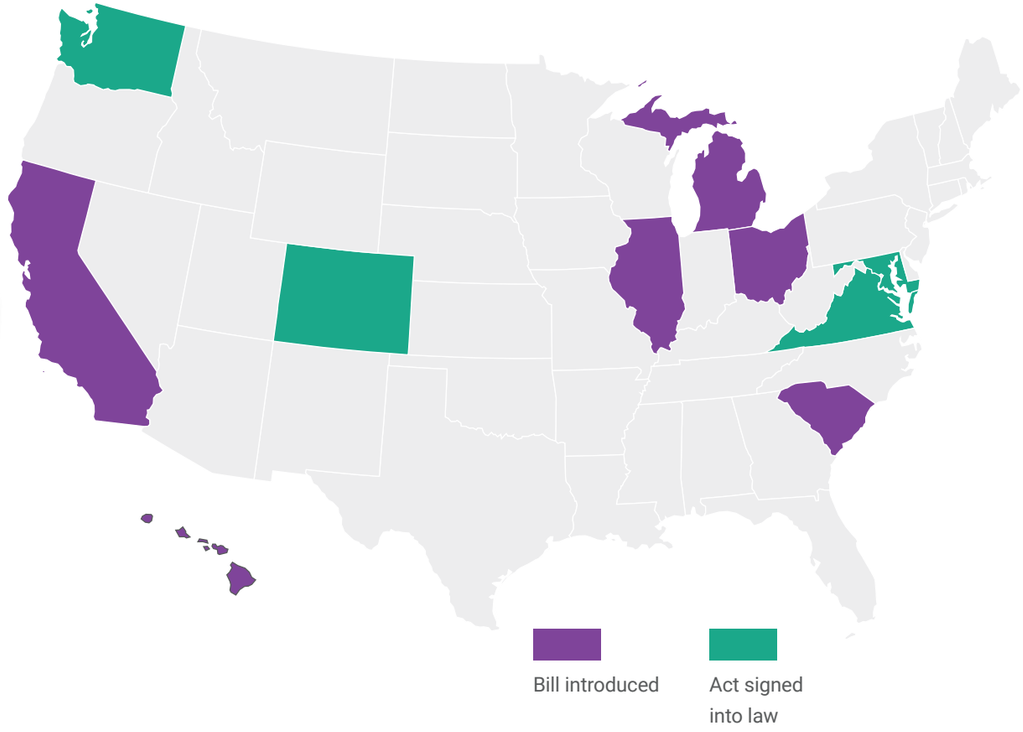
In 2024, a broad coalition of Colorado stakeholders came together to support and pass SB 24-218. VP3 staff helped advise and educate stakeholders in Colorado government and civil society on the benefits of VPPs.

The bill, which was signed into law in May, focuses on the role of VPPs in providing distribution grid services, and requires Xcel to submit a VPP plan by February 2025.

We were honored to have SB 24-218 signed into law by Governor Jared Polis at RMI's office in Boulder.

Governor Jared Polis signs SB24-218 – Power Up Colorado – at RMI's office in Boulder.
Photo courtesy of COSSA

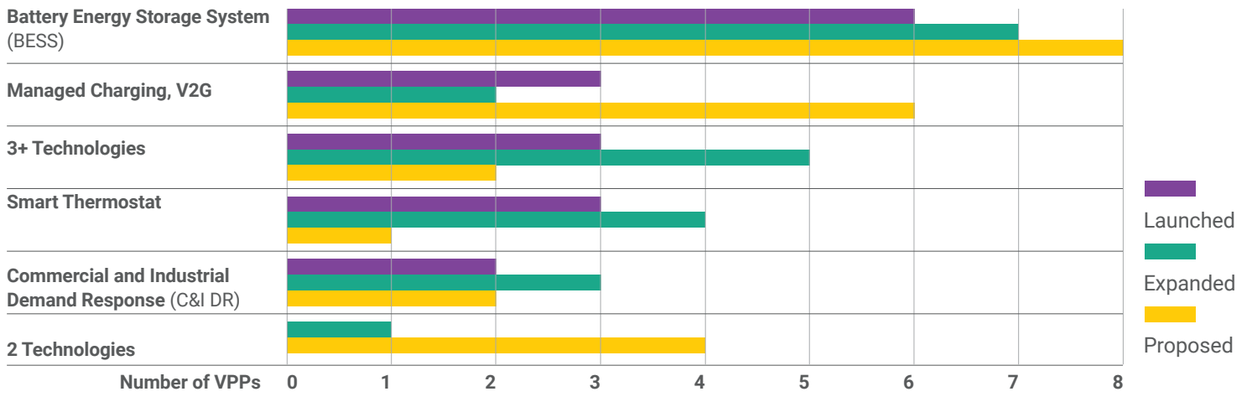
VPP-related bills introduced and enacted in 2024



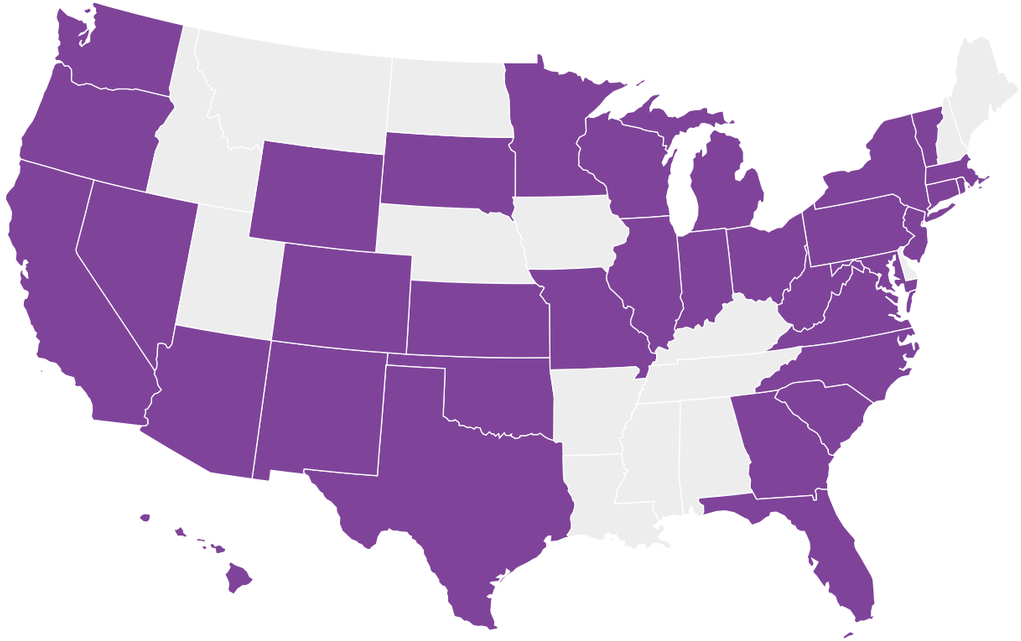
Utilities in 34 states and Puerto Rico took meaningful action to initiate or expand VPPs.

UTILITY PROGRAMS

Breakdown of initiated or expanded VPPs by technology/type



States in which at least one utility initiated or expanded a VPP program



Ohm Analytics

Additional details on regulation industry progress in Appendix A, page 28.

RTOs, alongside state regulators, are slowly advancing VPP participation in wholesale markets.

MARKETS

2222 Compliance

At the end of 2024, only CAISO and ISO-NE were fully compliant with Order 2222. SPP and PJM submitted updated plans to FERC in 2024, but these were deemed to not be fully compliant with Order 2222.

State Action

Five state regulators took proactive action to anticipate challenges and prepare for participation of DER aggregations in wholesale markets in 2024. *See table at right.*

ERCOT

ERCOT is not subject to FERC authority. However, the Texas PUC, with guidance from the Aggregated Distributed Energy Resource Task Force, continued to expand ERCOT's ADER Pilot and explore broader participation of DERs in wholesale markets.

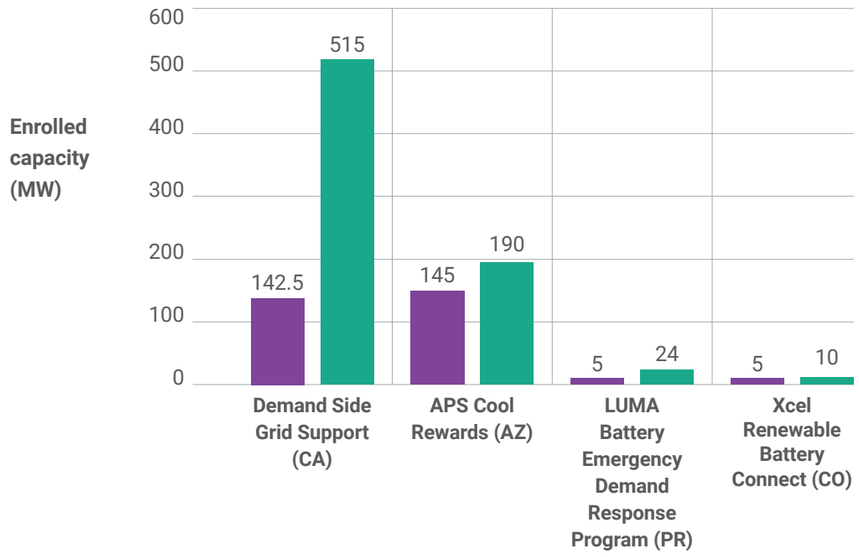
RTO	2222 Compliant	State Regulatory Actions
CAISO	YES	
NYSIO	NO	
PJM	NO	**New Jersey:** BPU issued an RFI to understand how utilities are preparing for DER aggregation and to solicit feedback on implementation from stakeholders. **Pennsylvania:** PUC initiates Advance Notice of Proposed Rulemaking Order to implement FERC 2222, which enables DERs to participate alongside traditional resources in the regional wholesale markets.
ISO-NE	YES	
MISO	NO	**Michigan**: Public Service Commission formed a Demand Response Aggregation Working Group. **Wisconsin:** Public Service Commission opened investigation into aggregation of retail customers into demand response resources. **Indiana:** Utility Regulatory Commission closed its investigation into public utility status of distributed energy resource aggregators.
SPP	NO	

Source: Sydney Forrester et al., *State regulatory opportunities to advance distributed energy resources aggregations in wholesale markets*, Lawrence Berkeley Lab, 2025, https://emp.lbl.gov/publications/state-regulatory-opportunities.

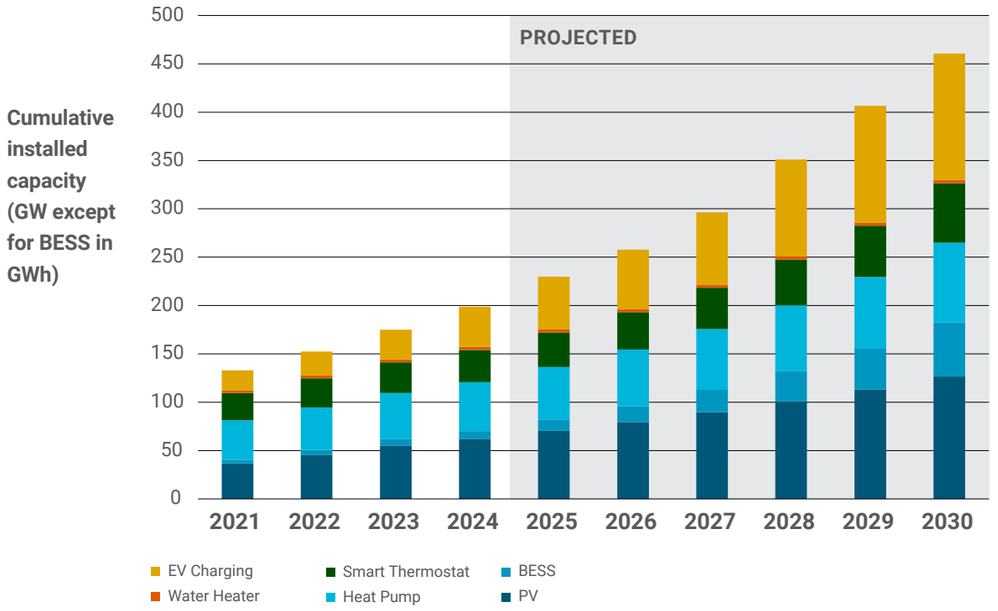
With support from policy and consumer demand, DER and VPP capacity continues to grow.

DEPLOYMENT

Enrollment in select VPPs 2023-2024*



National cumulative installed DER capacity: historical and projected



Ohm Analytics

The VPP industry was active with partnership and initiative announcements.

NEWS AND ANNOUCEMENTS

Initiatives and Innovations

Consumers Energy Selected by U.S. Department of Energy for Nearly $20 Million to Add Real-Time Visibility to Grid

Mercury Consortium Launched to Boost Adoption of Clean Energy Tech

OPINION

Distributed capacity procurement: A new model for utilities to deploy DERs at scale

The record-setting surge in PJM capacity pricing spotlights the reality that we have been unable to build new capacity resources fast enough.

Published Sept. 5, 2024

Partnerships

NRG, Renew Home and Google Cloud Announce Partnership

NRG Energy,
Nov 7, 2024

CPOWER AND ENERGYHUB PARTNER ON RESIDENTIAL VIRTUAL POWER PLANT FOR AMEREN CUSTOMERS

DIVE BRIEF

Sunrun, BGE launch first US electric vehicle-to-home virtual power plant

The program kicks off with just three customers but is "a significant proof of concept ... and the goal is to expand these programs all around the country," said Sunrun CEO Mary Powell.

Uplight to Acquire AutoGrid, Expanding Clean Energy Offerings, Markets, and Business Models

Acquisition places Uplight at the center of energy transformation imperatives: electrification, digitization, and decarbonization

Leap and Carrier Partner to Launch SmartSave Virtual Power Plant Program

New grid resilience initiative empowers Carrier customers to earn rewards, save energy, and lower carbon emissions.

DIVE BRIEF

Sonnen, SOLRITE Energy launch grid-optimizing virtual power plant in Texas

The program aims to relieve congestion and improve renewable power economics on the Electric Reliability Council of Texas grid, sonnen USA CEO Blake Richetta said.

SOUTHERN CALIFORNIA EDISON AND FORD TEAM UP TO REWARD ELECTRIC VEHICLE CUSTOMERS FOR SUPPORTING THE GRID

Ford becomes first major automaker in the U.S. to participate in Emergency Load Reduction Program that compensates car owners for assisting the grid during peak periods of energy demand.

DIVE BRIEF

Voltus, Resideo expand residential virtual power plant to 11M ComEd, PSEG-LI customers

The smart thermostat demand response program will help manage loads in the PJM Interconnection and NYISO regions during grid emergencies, company representatives said.

VP3 in Action in 2024

VP3 connects the industry and informs decision-making to advance VPPs.

VP3 IMPACT	Connect and strengthen the VPP industry.	Develop and disseminate VPP insights.	Advance VPP policy and programs.
What do we do?	1. Bring members together for in-person convenings and industry events 2. Convene monthly working groups	1. Develop research and analysis 2. Disseminate research through media and events	1. Educate and support policymakers and utilities 2. Submit or support comments 3. Coordinate policy-responsive VP3 member actions
Why does it matter?	A coordinated, connected, and well-informed industry is needed to drive meaningful change.	Decision makers need insight on VPP benefits and VPP design options. VP3 research frames policy options and provides practical recommendations.	Policy change and program development enable VPP market advancement. VP3 works to ensure our insights and perspectives lead to lasting policies and programs.

VP3 convenings bring together industry leaders to explore critical VPP topics and advance industry priorities.

VP3 CONVENING OBJECTIVES

Learn

Listen to and participate in discussions on emerging issues.

Connect

Engage with VPP industry leaders.

Advance

Collaborate on VPP industry priorities through problem solving and co-working on outputs related to VP3 12-month objectives.

*"VP3 convenings are by far the **most collaborative events** that exist in the energy industry. If there are any **big ideas that shake up the DER industry** in the next few years, I would not be surprised if they came from one of these events."*

- VP3 Member

Convenings at a glance

In 2024, VP3 held two multi-day member convenings:

- **Spring:** Denver, Colorado
- **Fall:** Detroit, Michigan

Members were joined by 12 guest organizations across both events, including:

- Colorado Energy Office
- Colorado Public Utility Commission
- APS
- Xcel Energy
- DOE Loan Programs Office
- Michigan Energy Innovation Council
- Michigan Public Service Commission
- Smart Energy Power Alliance
- Advanced Energy United

Discussion topics included:

- Role of local government in scaling VPPs
- Standardizing VPP operations
- VPPs in wholesale markets
- Federal funding for VPPs

VP3 members during the VP3 Spring 2024 Convening in Denver.

VP3 working groups are a hub for learning, discussion, and consensus-making.

OVERVIEW OF WORKING GROUPS

VP3 working groups meet monthly to share perspectives, advance VP3 outputs, and align on important next steps.

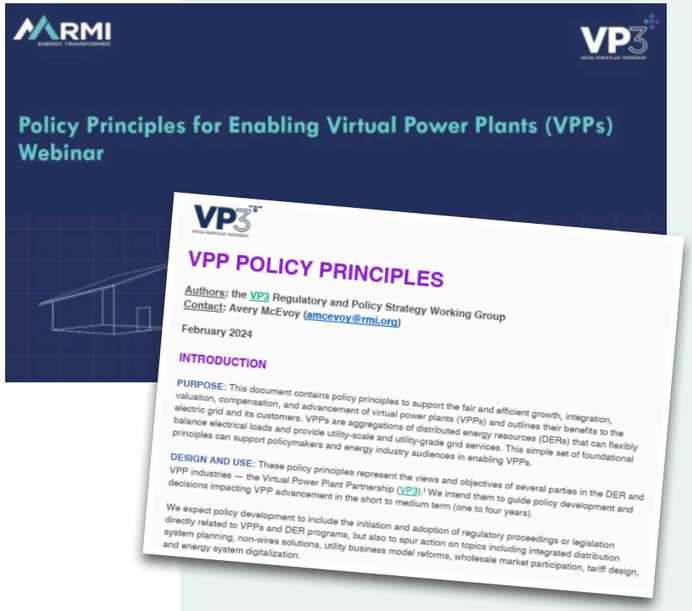
VP3 ran four working groups in 2024.

- Regulatory and Policy
- Working with Utilities
- Data, Interoperability, and Communications
- Communicating the VPP Story*

See Appendix B, page 30, for additional details on VP3's working group objectives.

* The Communicating the VPP Story working group was discontinued mid-2024 based on VP3 and member priorities.

WORKING GROUP SPOTLIGHT: VPP POLICY PRINCIPLES



After five months of active discussions and collaboration with the VP3 Regulatory and Policy working group, VP3 published the VPP Policy Principles. This is just one example of how working groups support learning, consensus development, and direct impact.

Impact of VPP Policy Principles

Sharing Perspectives
VP3 members expressed the importance of exchanging ideas with other VP3 organizations and how that has positively impacted them at the employee and business level.

Developing Consensus
Despite diverse business models among VP3 members, members were able to align on 17 consensus principles detailed in the report.

Informing Policymakers
The VP3 Policy Principles report has been used by VP3 and members to engage decision makers including New England Conference of Public Utility Commissioners and National Association of Regulatory Utility Commissioners.

Members also reported referencing the VPP Policy Principles multiple times when speaking to Commissioners.

VP3 develops research to center the role of VPPs in the industry.

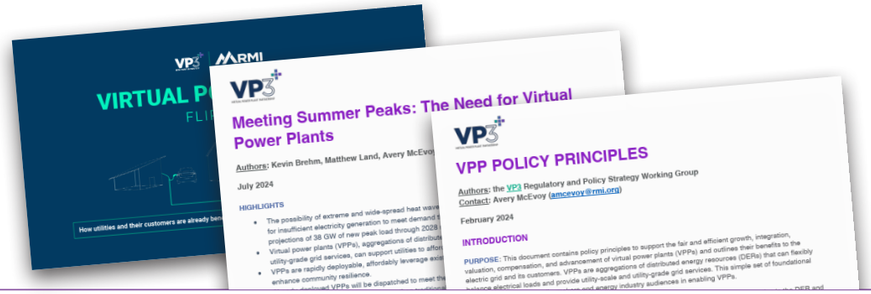
VP3 published four briefs and major reports in 2024 to disseminate research:

- VPP Policy Principles
- VPP Flipbook
- Summer Reliability Report
- Power Shift

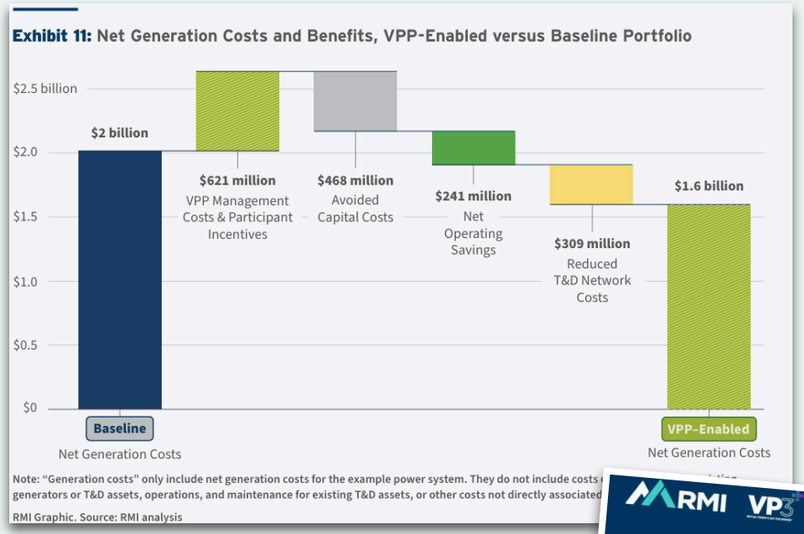
These publications have been downloaded more than 12,000 times and have been cited in the work of other research organizations, like Lawrence Berkeley National Laboratory and the Brattle Group.

VP3's research has also been used by state and federal organizations, such as the New York Public Service Commission and the US Department of Energy to inform VPP policy.

See Appendix B, page 30, for additional details on publication downloads.

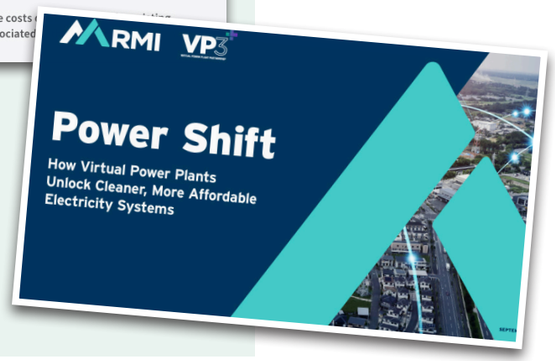


RESEARCH SPOTLIGHT: POWER SHIFT



RMI's *Power Shift* analysis leveraged capacity expansion modeling to assess the impact of VPPs on total system costs in a representative power system.

Power Shift insights were shared with decision makers through articles in Microgrid Knowledge, Latitude Media, and RTO Insider, as well as presentations at PLMA.



*Power Shift analysis on a representative utility territory showed that **VPPs reduce net generation costs by 20%, saving households $140 per year.***

VP3 engages regulators, utilities, and policymakers to advance VPP policies and programs.

ENGAGEMENT SPOTLIGHT: FALL PLMA

RMI, utility, and VPP provider panelists participated in the "How to Develop a Multi-Service VPP" workshop at the Fall PLMA Conference in Brooklyn, NY. The workshop had more than 60 attendees comprised of utilities and industry experts.

2024 engagement highlights

Regulator engagement

- Co-facilitated VPP workshop with NARUC, DOE, and SEPA at NARUC Winter Policy Summit for 200+ attendees including regulators, utilities, and industry stakeholders.
- Participated in panels on VPPs at the Mid-America Regulatory Conference in Minneapolis and Western Conference of Public Service Commissioners.
- Directly engaged with regulators including Michigan Public Service Commission and Colorado Public Service Commission.

Utility engagement

- Facilitated two interactive workshops at PLMA events, reaching more than 200 attendees including 60+ utility attendees.
- Spoke on opening panel session for PLMA EV Symposium.
- Presented on VPPs to utility groups such as the Colorado Rural Electric Association, the Colorado Solar and Storage Association, and CEATI.
- Conducted bilateral conversations with utilities to provide VPP support, including APS, Holy Cross, PGE, BC Hydro, and National Grid.

Policymaker and ally engagement

- Engaged with multiple parties to inform and advance Senate Bill 24-218 in Colorado.
- Provided educational support to decision makers and advocates on VPP legislation in Virginia and Minnesota.
- Convened 14 NGOs and industry groups to discuss best practices for VPP communications as follow-up to Antenna Group's VPP Brand Campaign Research.

See Appendix B, page 31, for the list of conferences VP3 participated in 2024.

Growing Our Impact in 2025

In 2025, VP3 will deliver on our current workplan ...

VP3 is currently focused on advancing seven 12-month objectives.

1. **Center VPPs as a reliability solution**
2. **Support utilities to design and implement VPPs**
3. **Enable New York to become a lighthouse state for VPPs**
4. **Empower Michigan to become a regional VPP leader**
5. **Act as an industry voice to support standardization of VPP operations**
6. **Locate VPPs in the national energy transition conversation**
7. **Align on a strategic vision for market advancement**

Objectives were developed in consultation with members and finalized in May 2024.

The following activities and outputs are already being advanced.

1 Connect and strengthen the VPP industry

- Monthly working group meetings
- Spring Convening (May 2025)
- Fall Convening (Fall 2025)

2 Develop and disseminate VPP insights

- Metering Options Paper
- Michigan Policy Brief
- Flipbook 2.0
- VPP Planning Playbook
- NARUC and PLMA Conferences

3 Advance VPP policies and programs

- Utility roundtables
- Engagement in New York and Michigan
- Collaboration with advocacy organizations

Workplan priorities were shared with members after the Fall 2024 convening.

... and identify new priorities ...

After May, we will update our objectives and workplan based on industry needs and member input.

Spring Convening focus areas

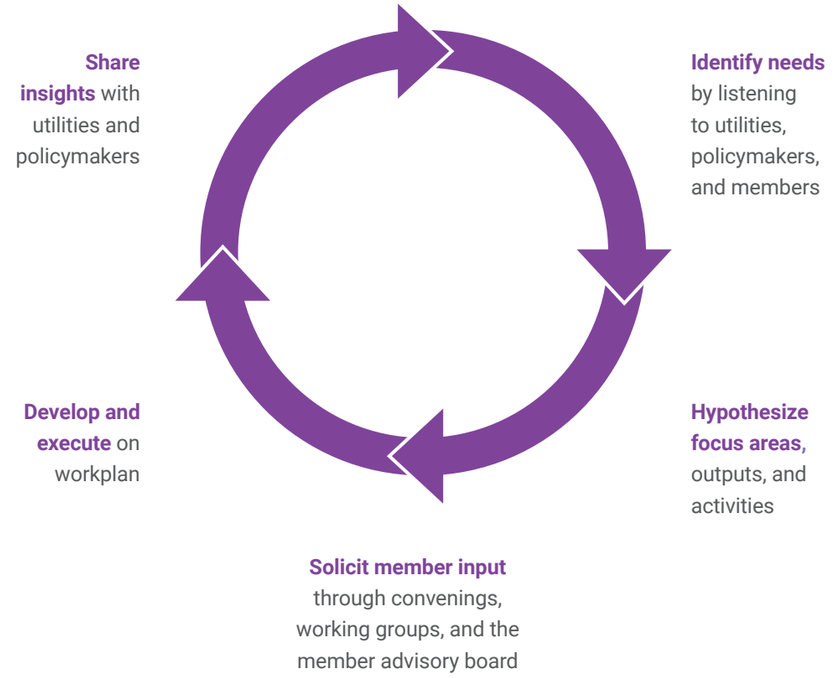
1. Enabling New York's grid of the future via VPPs
2. Unlocking VPPs to provide distribution grid services
3. DER deployment models – What is the role of the utility?

Additional potential 2025 focus areas

1. VPPs in wholesale markets
2. Principles for data access and sharing
3. VPPs and large load growth
4. Integrating VPPs into planning
5. Quantifying VPP value

The 2025 focus areas will be informed by discussions with VP3 working groups, and member advisory board.

Our workplan and priorities are informed by input from VP3 members, utilities, and policymakers.



... while working to empower VP3 members who make our work possible.

Benefits of VP3 membership	How to access
Situational awareness Stay up to date on current research and trends in the VPP industry.	• **Attend monthly working group meetings.** These meetings include industry updates, guest speakers, and cross-member discussion. • **Sign-up for the VP3 newsletter.** The monthly email is an opportunity to keep a pulse on VP3 updates and industry news. • **Ask for connections to RMI experts.** Beyond VP3 we can connect you to subject matter experts across RMI's body of work. • **Leverage VP3 resources** including the docket tracker.
Partnerships and brand awareness Increase awareness of your brand and develop connections and partnerships with industry leaders.	• **Attend in-person convenings.** These twice annual meetings are a great place for awareness, connections, and networking. • **Collaborate on conference presentations and industry events.** We love to spotlight our members at conferences and in webinars. Reach out to us so we can collaborate.
Shape VP3 priorities and workplan Provide input to steer VP3 activities and to best align with your business' priorities.	• **Attend member advisory board (MAB) meetings.** The MAB provides feedback and input to inform our priorities and workplan. • **Co-chair a working group.** Co-chairs serve on an annual basis, helping to shape working group plans and outputs. • **Reach out to VP3 staff and leadership.** We're here to listen. Reach out with your thoughts, ideas, and feedback.

We appreciate your support and look forward to our continued collaboration!

VP3 Leadership and Team

Mark Dyson
Managing Director, RMI Electricity Program
mdyson@rmi.org

Lauren Shwisberg
Principal, RMI Electricity Program
lshwisberg@rmi.org

Kevin Brehm
Manager, VP3
kbrehm@rmi.org

Neevetha Nadarajah
Associate, VP3
neevetha.nadarajah@rmi.org

RMI Subject Matter Experts

VP3 works with and relies on our expert colleagues from across RMI

Alex Walmsley
Regulation and Policy

Arjun Gupta
India Grid Flexibility

Althindra Venkatraman
India Grid Flexibility

Avery McEvoy
Regulation, Policy, and Facilitation

Ben Shapiro
Transportation Electrification

Brett Webster
Grid-Interactive Buildings

Cara Goldenberg
Electricity Regulation

Jesse Cohen
Planning and Modeling

Mary Tobin
Climate Tech and Utilities

Molly Freed
State Policy

Rachel Gold
Regulation, Policy, and Energy Efficiency

Tyler Fitch
Planning and Regulation

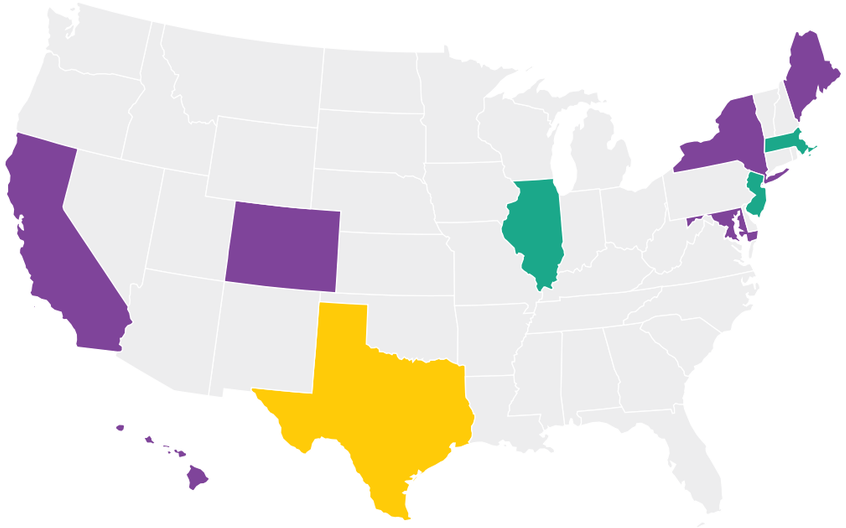
VPP resources

Published in 2024

- Ryan Hledik et al., *Distributed Energy, Utility Scale: 30 Proven Strategies to Increase VPP Enrollment*, Lawrence Berkeley Lab, 2024
- Ryan Hledik, Kate Peters, and Sophie Edelman, *California's Virtual Power Potential*, The Brattle Group, 2024
- *Getting ahead of the EV tipping point: Proactive EV management strategies for an efficient and flexible grid*, AES and Camus Energy, 2024
- *The State of Managed Charging in 2024*, Smart Electric Power Alliance, 2024
- Elaine Hale, *VPP Participation Models: What is the Objective?, National Energy Renewable Laboratory*, 2024
- Jing Wang, Joshua Comden, and Andrey Bernstein, *Real Time-Optimal Power Flow-Based Distributed Energy Resource Management System (DERMS)*, National Energy Renewable Laboratory, 2024
- Emily Apadula et al., *50 States of Grid Modernization: Q1 2024 Quarterly Report*, NC Clean Energy Technology Center and DSIRE Insight, 2024

Appendix A: Policy and Utility Program Updates from Ohm Analytics

Utility commissions in 10 states and D.C. took action to expand deployment of VPPs.



Proposed/ In-Development

Approved

Proposed/ In-Development and Approved

California
10/4/24

The California Energy Commission releases the fourth edition of its Demand Side Grid Support (DSGS) Program Guidelines. Proposed is a new incentive called Emergency Load Flex VPP which leverages smart thermostats and water heaters to reduce demand during 2+ events annually.

Hawaii
12/31/24

The Hawaii Public Utilities Commission commences a review on HECO's BYOD tariff with the goal of increasing participation through greater compensation for grid services.

Maryland
10/1/24

The Maryland Public Service Commission issues its Maryland Energy Storage Initiative Workgroup Phase I Final Report, which provides guidance to meet the state's energy storage goals. The report includes the option for utilities to recommend a performance-based BTM battery storage program.

Massachusetts
8/29/24

Electric Sector Modernization Plans (ESMP) are approved for electric utilities Eversource, National Grid, and Unitil. The utilities will implement a $50M Grid Services Compensation Fund to promote non-wires alternatives by compensating dispatchable DERs and flexible loads that participate in utility dispatch to provide grid services.

New Jersey
10/31/24

PSE&G, O&R, and ACE receive approval for their Triennium II Plans. All three utilities will launch a residential smart thermostat DR program and PSE&G will also launch a battery VPP.

New York
4/18/24

The NY Public Service Commission initiates a Grid of the Future Study to establish targets for deploying flexible assets, such as VPPs. Phase I, released in January 2025, is an assessment of current and potential flexibility, including DR programs and storage.

Texas
2/27/24

ERCOT's ADER Pilot Phase II is released for feedback and the ADER Pilot approves Bandera Electric Cooperative's VPP for participation.

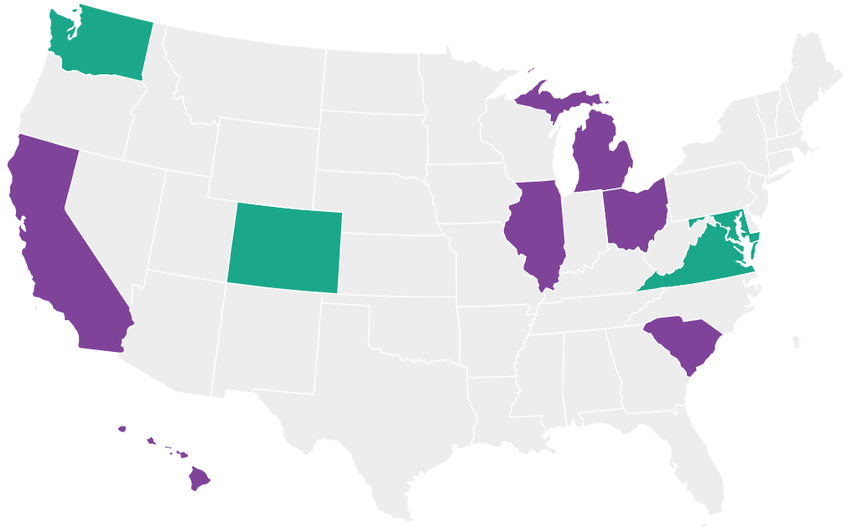
12/12/24

Texas PUC issues a rule to proceed with implementation of PURA § 39.919, which sets a goal of a 20% reduction in consumption for customers enrolled in a responsive device DR program.

Washington, D.C.
11/21/24

The DC Public Service Commission finalizes an RFP for a 2025 DERMs management software pilot project to be released. The RFP will fund a VPP or DERMS pilot for at least two years with the intent of being extended after the pilot ends.

10 states took action to advance VPPs.



Bill introduced

Act signed into law

California
SB 1305

The bill requires utilities to procure a percentage of power from VPPs, starting at 2.5% in 2028 and increasing to 15% by 2035.

Colorado
Act to Modernize Distribution Systems

On May 22, 2024, Gov. Jared Polis signs into law the act, which requires qualifying utilities to submit a VPP plan that includes energy storage systems, by February 1, 2025.

Hawaii
HB 1687 / SB 2986

The bill requires utilities to compensate the full retail rate to customers with PV and battery energy storage systems that participate in a utility program. It requires establishing compensation values for resiliency, capacity, and ancillary services.

Illinois
HB 5856 / SB 3959

The bill requires large utilities to create VPPs to reduce peak load and a separate stand-alone battery energy storage pilot.

Maryland
DRIVE Act

On May 9, 2024, Gov. Wes Moore signs into law the act, which requires utilities to design a VPP that will monetize energy from DERs that is sent back to the distribution system, including from bi-directional EV chargers.

Michigan
SB 773

The bill requires behind-the-meter and energy storage system owners and aggregators to be compensated for grid services that they provide.

Ohio
SB 773

The bill encourages utilities to establish energy efficiency and demand reduction portfolios.

South Carolina
HB 5118

The bill enables utilities to introduce programs and incentives for customers to shift load, including the use of battery energy storage systems and aggregate DERs.

Virginia
Chapter 827

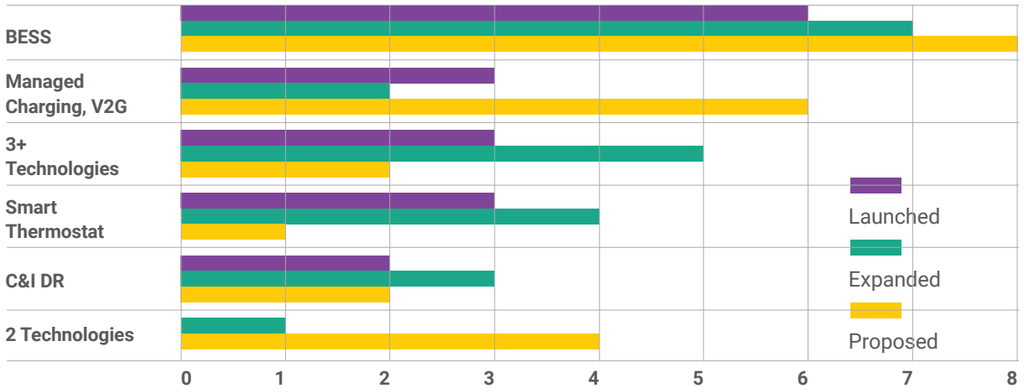
On April 17, 2024, Gov. Glenn Youngkin signs into law an update to net-metering policy that allows customers to be compensated for grid services that their battery energy storage system provides, including demand response, energy efficiency, and peak reduction.

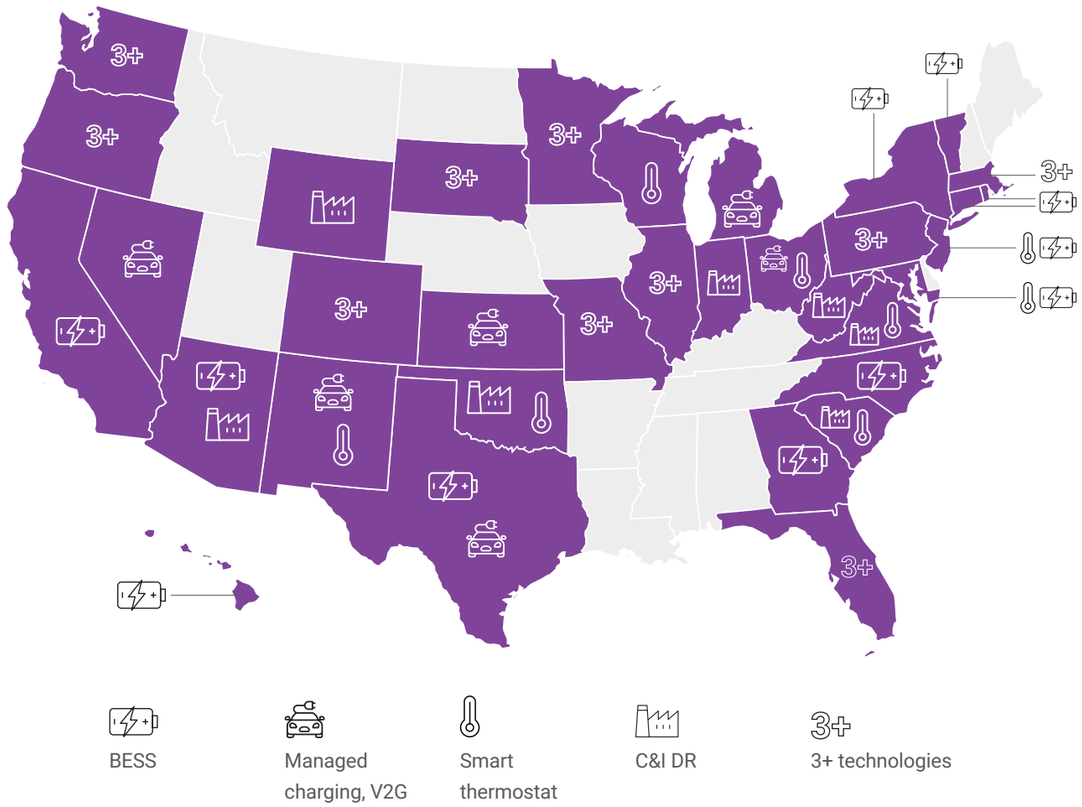
Washington
Chapter 351

On March 28, 2024, Gov. Jay Inslee signs into law a requirement that large combination gas and electric utilities implement demand response and flexible load programs that are equal to 10% of winter and summer peak load by January 1, 2027.

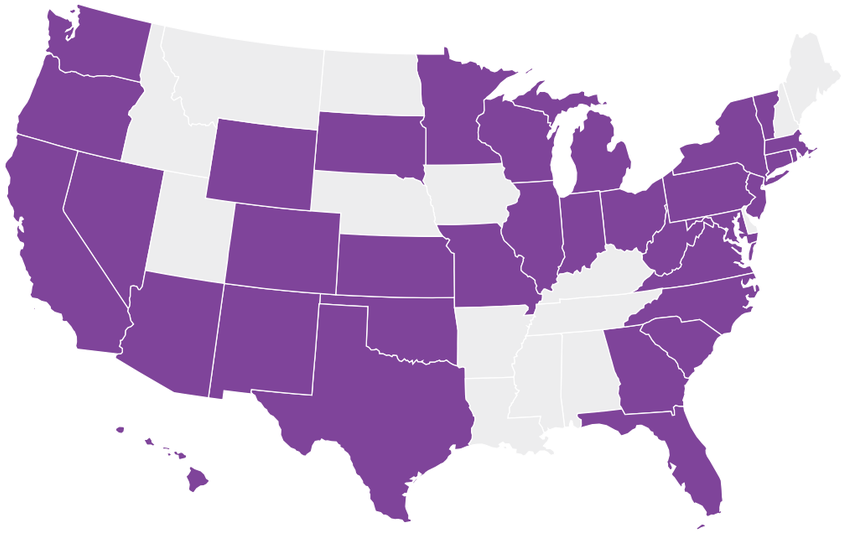
Utilities in 34 states and Puerto Rico took meaningful action to initiate or expand VPP/DR programs.

Breakdown of initiated or expanded VPPs by technology/type





Utilities in 34 states and Puerto Rico took meaningful action to initiate or expand VPPs.



UTILITY PROGRAMS

Arizona
8/30/24

APS files a proposal for a BYOD Battery Pilot program with Arizona Corporate Commission. Comprised of 5,000 residential storage systems, the program would pay customers for energy delivered during discharge events.

California
10/16/24

PG&E opens its residential V2X pilot, which offers $3,000 as an enrollment incentive and the ability to earn up to $2,175 in performance incentives.

Colorado
9/1/24

Xcel receives approval to transition its actively managed charging program from a pilot to a permanent offering. Xcel also issues an RFP for a DERMS platform for its upcoming VPP.

Hawaii
4/1/24

HECO's Smart DER and BYOD tariffs launch on all five islands. For customers with PV + BESS, the Smart DER Tariff incentivizes exporting stored energy during periods of high grid demand. The supplemental BYOD tariff requires customers to participate in a regular export schedule or DR events.

Illinois
12/19/24

ComEd files plans for a residential VPP program that includes smart thermostats and battery energy storage.

Maryland
6/1/24

BGE launches a V2H pilot using Ford F150 Lightnings to discharge during peak events into customers' homes.

Minnesota
10/1/24

Xcel proposes its 2024–2040 Upper Midwest Integrated Resource Plan with a Distributed Capacity Procurement program, which would integrate DERs and VPPs into its system planning.

Oregon
12/20/24

PacifiCorp/RMP files with the Oregon PUC to implement its Wattsmart Battery Program, which compensates battery energy storage system owners for allowing the utility to discharge it during peak events.

Pennsylvania
5/20/24

PPL files for approval of its Second Distributed Energy Resources Management Plan, making the pilot permanent and expanding it to include DERs installed before January 2021.

Vermont
9/10/24

Vermont PUC grants Green Mountain Power permission to expand its leased energy storage system program's budget by $15 million.

Virginia
12/13/24

Dominion proposes its 2024 Demand-Side Management update which includes a new Non-Residential DG Program and a Residential Battery Storage Pilot Program. Participants in the Residential Battery program will receive enrollment and performance incentives for discharging during peak events.

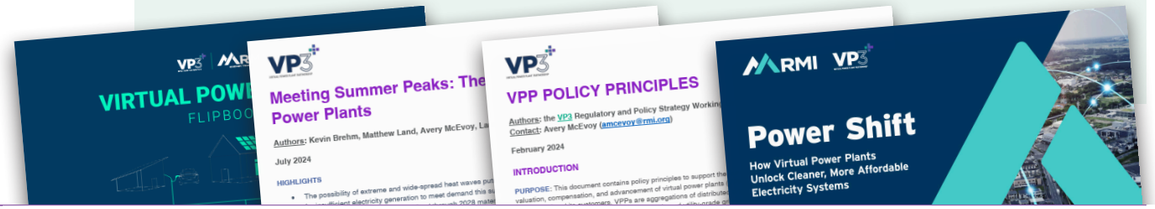
Appendix B: VP3

VP3 member working groups

Working group	Objectives	2024 outputs
Regulatory and Policy Strategy	**Increase regulator and policymaker awareness** of and trust in VPPs through education, amplification, and advocacy for VPP enabling policies.	• VPP Policy Principles • Webinar and slides • VPP docket and bill tracker for members
Working with Utilities	**Understand utility needs to implement VPPs** and enable utilities to be advocates for VPPs through hosting convenings and disseminating written materials.	• *Virtual Power Plant Flipbook* with case studies of VPPs around the United States and leading practice examples of program design
Data, Communications, and Interoperability	**Promote standardized technical requirements** for VPP participation that are deemed necessary, valuable, and reasonable through market synthesis and analysis.	• **Upcoming 2025:** Metering and Telemetry Brief

VP3 published four briefs and major reports in 2024

Report	Total downloads	Major media mentions
VPP Policy Principles	2,470 downloads	Green Mountain Power, RMP offer strong virtual power plant blueprint: RMI webinar, Utility Dive
VPP Flipbook	9,300 downloads	Successful VPP programs have long-term outlook, multiple energy technologies: RMI flipbook, Utility Dive
Summer Reliability Report	330 downloads	US VPPs can meet summer demand peaks faster, cheaper than new generation and transmission: RMI, Utility Dive
Power Shift	1,370 downloads	RMI, VP3 Report Lays out Growth Case for Virtual Power Plants, RTO Insider



VP3 2024 Conferences

Event	Conference dates	Session	VP3 role
NARUC Winter Policy Summit	February 25–28, 2024	Virtual Power Plant Workshop	Workshop co-facilitator (with SEPA and the DOE)
California Climate Policy Summit	March 19, 2024	Virtual Power Plants for a Climate-Safe Electricity Grid	Panel moderator
PLMA Spring Conference	May 6–8, 2024	Power Shift: How Virtual Power Plants and Demand Flexibility Can Drive Affordable Decarbonization	Speaker
WCPSC Regulatory Summit	June 2–5, 2024	Virtual Power Plants: Leveraging Technology to Optimize Our Infrastructure	Speaker
Virtual Power Plant Texas	June 6, 2024	The Role of Major Industry Players and the Importance of Partnerships	Speaker
Mid-America Regulatory Conference	June 9–12, 2024	Virtual Power Plants, Aggregation, Demand Response, and Distributed Energy Resources	Speaker
RE+	September 9–12, 2024	The Art and Science of Distributed Energy Resource (DER) Forecasting	Panelist
PLMA Fall Conference	November 13–15, 2024	How to Develop a Multi-Service VPP	Workshop leader

For more information about VP3, please visit vp3.io.
For more information about RMI, please visit RMI.org.