Keeping Customers Safe and Connected

July 2025

Disconnection Protections for a Wilder World

Across the United States, utilities conduct millions of electric service disconnections due to nonpayment every year. Disconnections can have severe impacts on a household, including adverse health consequences, the activation of Child Protective Services, and even death. RMI's *Disconnection Handbook* demonstrates the scale of the energy poverty crisis that leads to mass utility disconnections, explores the current landscape of utility disconnection protections, and provides state policymakers with a comprehensive overview of disconnection protection reform options and high-level utility debt considerations.

Sign up to receive an email notification when our *Disconnections Handbook* is published.

The **growing number of billion-dollar-plus disasters and strains on the grid from extreme weather** make it clear: Both how we power our lives and how we protect the most vulnerable among us need an update. Public utility commissions (PUCs) across the country are responding to these challenges with their own innovative policies and approaches.

RMI is ready to support PUCs to work through the challenges ahead with a series of resources that can update life-saving protections (*Disconnections Handbook*); incorporate flexible resources that can quickly stabilize a stressed grid (*Power Shift*); and update planning processes to include these new realities and resources (*Resource Adequacy* and *Climate Risk Planning*).

Flexibility for the Best of Times, Resilience for the Worst

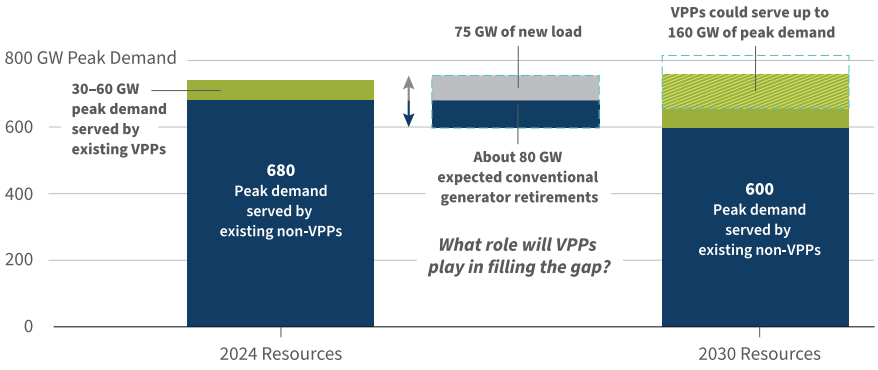
Virtual power plants (VPPs) — also known as distributed power plants — aggregate distributed energy resources (DERs) to provide grid services. Consumer demand for DERs is growing at such a rapid clip that, by 2030, 10 to 20 percent of peak demand could be met by VPPs.

To learn more about how VPPs can serve the grid, download our *Power Shift* report.

VPPs are low-cost and rapidly deployable. Basic VPP configurations can be deployed in less than six months with less than $1 million of investment at a net cost that is 40 percent cheaper than a conventional peaker plant. Sophisticated VPPs not only shave system peaks, but also provide distribution services that help defer investment and relieve strain on distribution infrastructure.

During times of disruption, DERs (sometimes configured into microgrids) support resilience by providing critical services to homes, businesses, and facilities.

Virtual US Power Sector Peak Demand Resource Transition, 2024–30



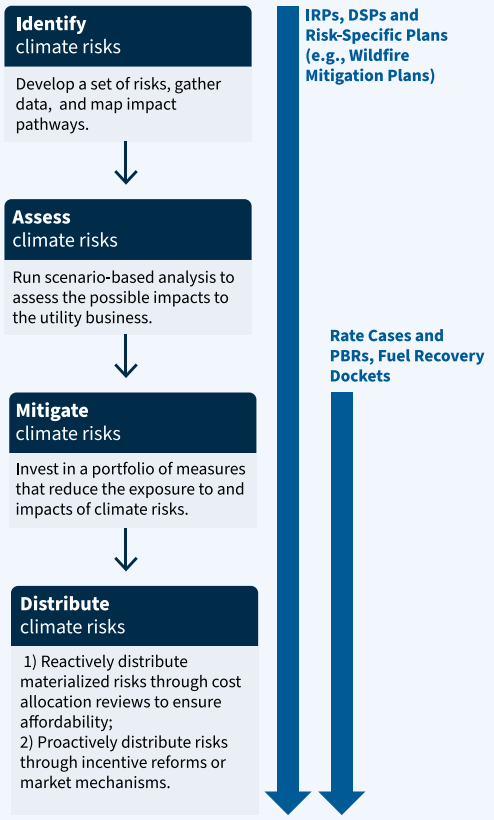
RMI Graphic. Sources: Downing et al., *Pathways to Commercial Liftoff*, 2023; and *2023 Long-Term Reliability Assessment*, North American Electric Reliability Corporation (NERC), 2023

Real Talk About Resource Adequacy

Resource adequacy — the component of grid reliability that ensures we have ample electricity supply to meet future demand — has been a hot-button topic amid our transforming energy landscape. Fortunately, the resource adequacy questions we face can be answered with affordable and clean energy solutions, while alternatives — such as new gas plants — face supply-chain bottlenecks and cost overruns that can threaten long-term reliability and customer affordability.

To move toward a reliable, affordable, and clean grid that alleviates future risks, regulators and utilities need to be thinking about proactively pursuing pragmatic innovations in planning, procurement, and utility business models today to achieve optimal outcomes for customers.

RMI's *Powering Through Uncertainty: A Resource Adequacy Toolkit* aims to support regulators across the country in understanding both the key drivers of resource adequacy risk and the specific options available to navigate and mitigate this uncertainty as the grid evolves. While this report highlights Western states as a case study, lessons can be applied to jurisdictions across the country.



Climate Risk Planning: Not Really Optional

Extreme weather accounted for the vast majority of major power outages in recent years. This reality points to a gap in the types of events that utilities are planning for and those that they are experiencing. As these disasters grow more frequent and severe, ratepayers are increasingly exposed to the risks that extreme weather brings — including skyrocketing insurance premiums, storm recovery costs, and liabilities associated with wildfire damage.

To prevent costs from spiraling out of control, utilities can rigorously assess extreme weather risks (shown in the table above) and evaluate the potential benefits associated with mitigation actions that keep customers safe when extreme weather strikes, all while saving money in the long run.