Bring Your Own Power Solutions and Legislative Considerations

Midwest Legislative Conference

Matthew Land
Senior Associate, US Program
matthew.land@rmi.org

Overview

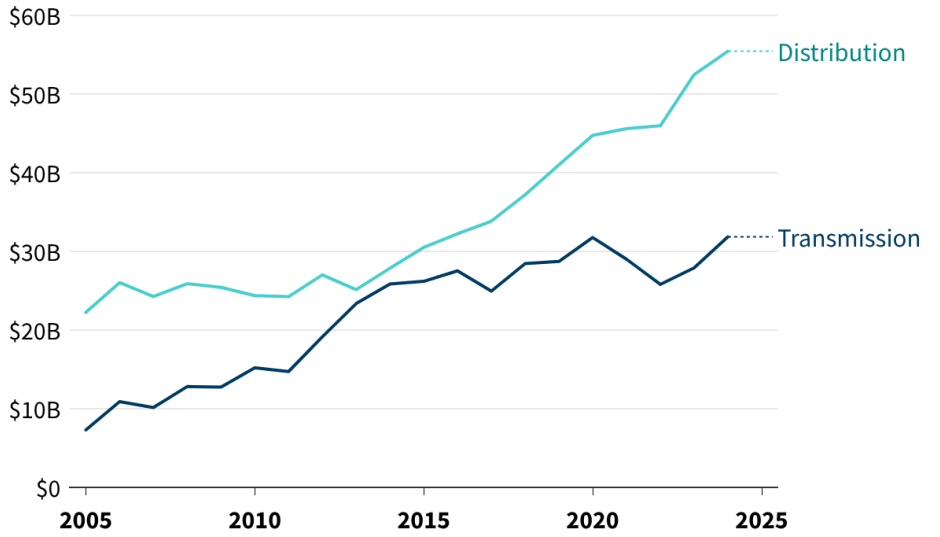
BYO Solutions Can Support the Grid

Overview of Key BYO Solutions

Policy Considerations

Utilities are investing heavily to upgrade the grid while facing pressure from load growth

Annual investment in transmission and distribution infrastructure has steadily increased over the last 20 years

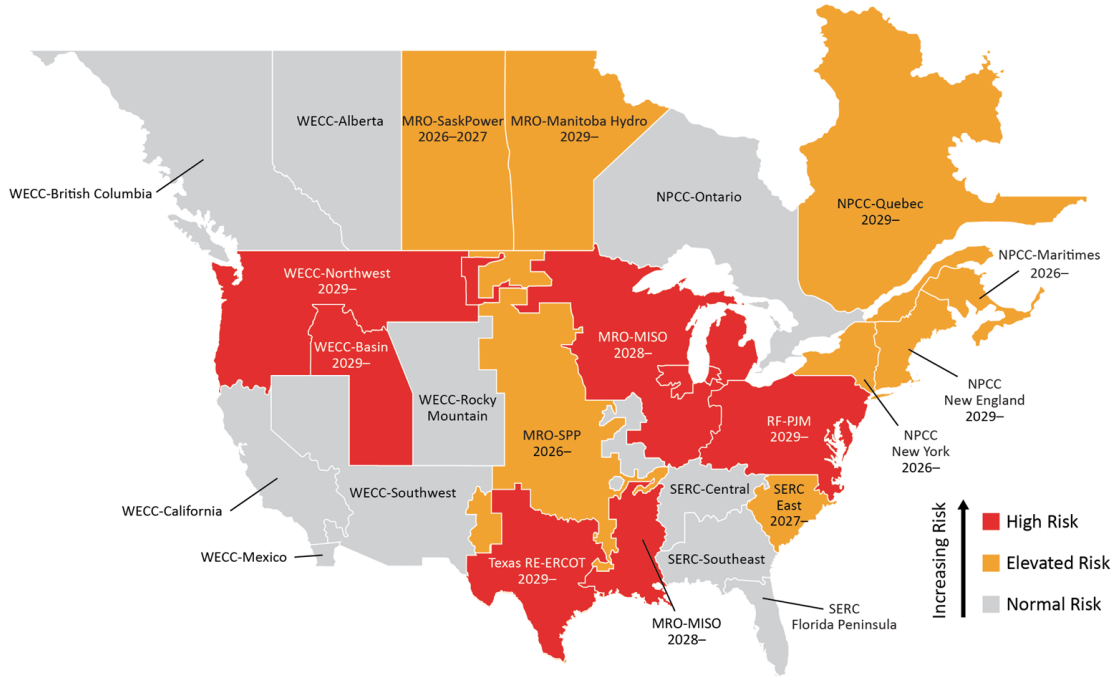


Annual capital investment shown in 2024 USD from utilities who submit FERC Form 1.

Source: RMI Utility Transition Hub

RMI

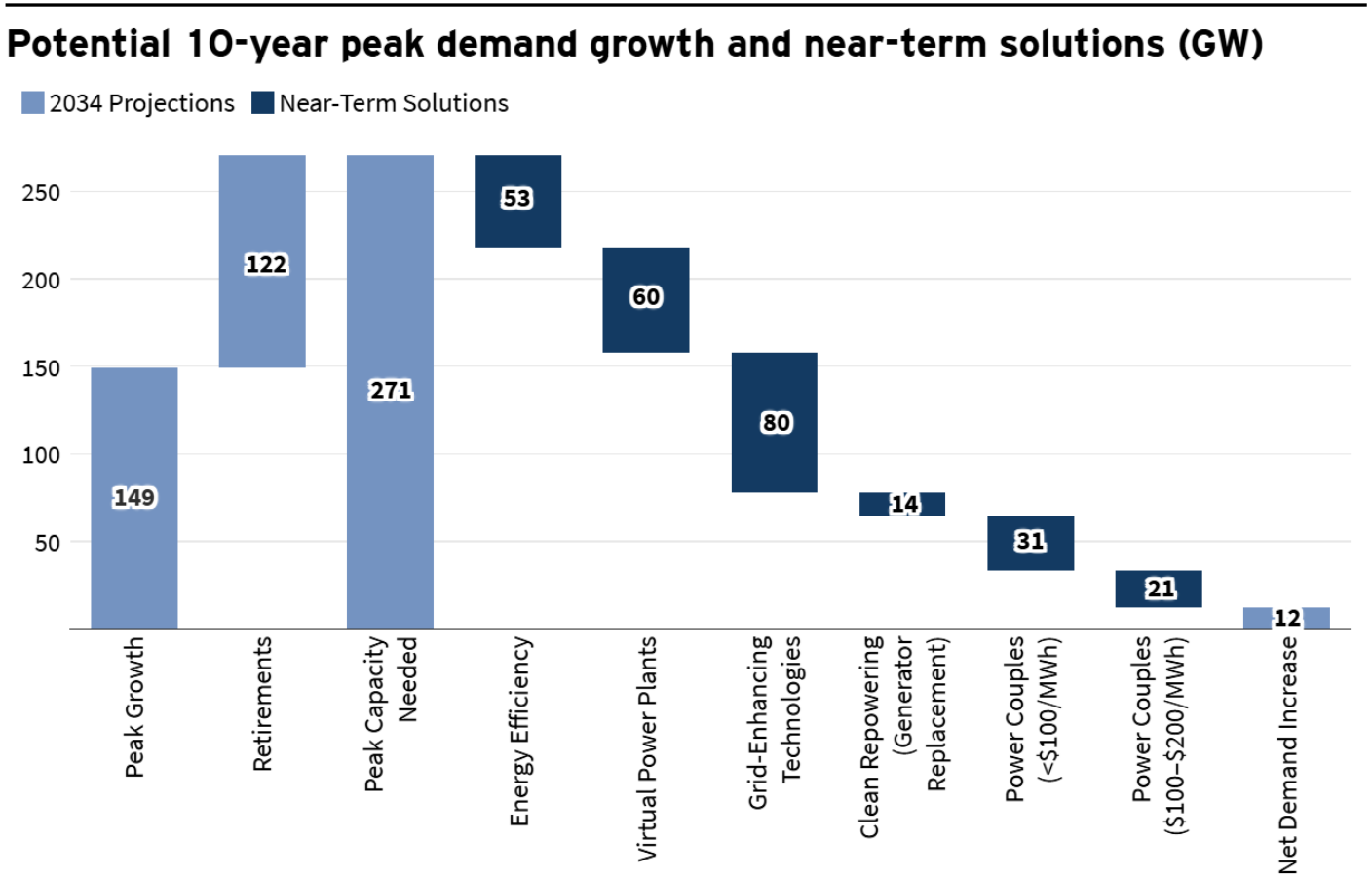
NERC Capacity and Energy Risk Assessment (2026–2030)



Source: NERC 2026 Long-Term Reliability Assessment

States are increasingly focused on addressing these challenges while promoting affordability and reliability for customers

BYO solutions can help quickly and affordably address load growth



- By 2034, the US may require ~270 GW of new on-peak generation capacity
- Meanwhile, new gas power generation capacity faces significant backlogs
- Many "BYO" solutions—customer-led power, load flexibility, and demand reductions—are deployable by 2030 and can meet a significant portion of the forecasted demand growth:
  - Energy efficiency programs
  - Virtual power plants
  - Co-location of new generation (and load) with existing facilities

 Source: RMI (2025)

BYO solutions range from household-level interventions to utility-scale generation

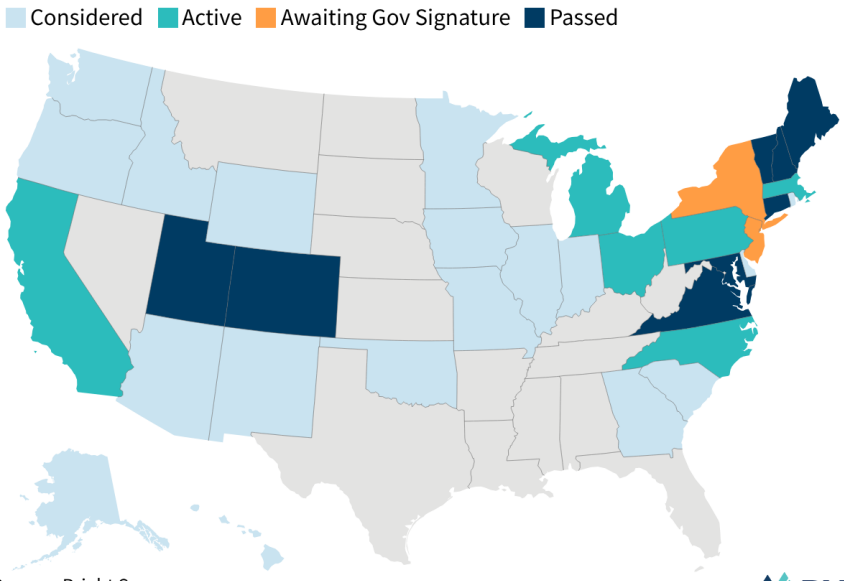
	Plug-in Solar	Virtual Power Plants (VPPs)	BYO Tariffs	BYO Distributed Capacity (BYODC)
What does the customer bring?	Small-scale power generation	Load flexibility through aggregated distributed energy resources (DERs)	Utility-scale generation resources	Investment in load flexibility and demand-side resources
Target customer	Residential	Residential, commercial, and industrial	Large commercial and industrial	Large commercial and industrial
Primary value for customer	Low-cost, supplemental electricity	Participation incentives	Speed to power	Speed to power + low-cost capacity
Primary value for grid	Limited grid value	Low-cost capacity and deferral of grid infrastructure investments	Mitigates cost impact from new large loads	The same benefits as BYO tariffs + deferral of grid infrastructure investments
Legislative opportunity	Address interconnection and compensation rules	Direct regulators to create utility VPPs and tariffs	Enable BYO tariff pathway	Enable BYO tariff pathway and create capacity-credit transfer mechanism

Plug-in solar allows more households to access electricity bill savings from solar

- Plug-in solar is a low-cost, accessible option for households to save between $15–$50/month on their electric bills
- Legislation is needed to address barriers posed by utility interconnection and net metering requirements

Over half of states have considered plug-in solar legislation and 8 states have passed legislation

Plug-in solar legislation status as of 2026.



Source: Bright Saver

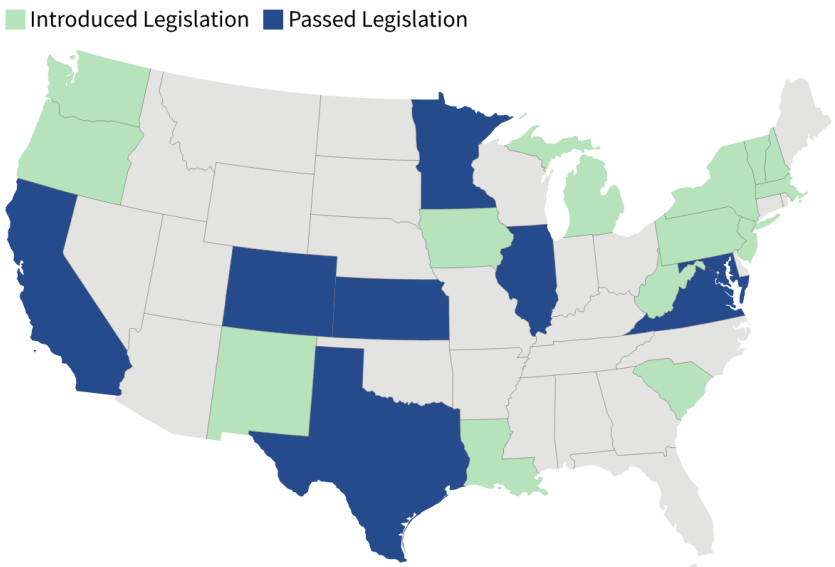
RMI

Legislative Approach	Considerations
Interconnection and Net Metering Requirements	• Create a separate class for plug-in solar systems that are exempt from utility interconnection and net metering requirements
System Safety	• Require systems to meet national and state-level safety certifications and standards (e.g. UL 3700, National Electric Code, etc.) • Consider circumstances in which systems should be installed by licensed electricians
Utility Information Sharing	• Consider if and how households should share information regarding their plug-in solar system with their utilities
Incentives and Rebates	• Consider rebates and incentives for certain populations to increase access to plug-in solar systems • Evaluate if plug-in solar should be integrated into existing state and utility programs for energy efficiency and technology upgrades

Virtual power plants leverage DERs to benefit customers and support the grid

- VPPs are highly adaptable and can provide a number of grid services including low-cost resource adequacy and distribution system reliability
- Participating customers earn incentives while non-participants can benefit from reduced utility system costs

VPP Related Legislation, 2022-present



This includes legislation covering a range of VPP-related topics such as requiring utilities to consider VPPs in planning, promulgating rules for distributed energy resource aggregations, and requiring the establishment of utility VPP programs.

Source: RMI analysis

Legislative Approach	Considerations
Facilitate DER Deployment	• Create incentives like tax credits and rebates • Streamline permitting and interconnection
Study VPP Benefits	• Direct PUCs to conduct proceedings on VPP development and potential state benefits
Establish Utility VPPs	• Require utilities to consider VPPs in planning processes • Require utilities and PUCs to create VPP programs and tariffs. • Allow multiple DER technologies to participate in VPPs and ensure VPPs can be compensated for multiple grid services
Scale VPP Deployment	• Direct PUCs to establish scalable programs and consider capacity procurement targets for VPPs • Establish utility revenue opportunities like PIMs tied to VPP deployment, adoption, and utilization • Harmonize DER and VPP planning processes to improve coordination
Promote Wholesale Market Participation	• Remove rules that prevent DR/DER aggregations from participating in wholesale markets • Facilitate data sharing between utilities and third-party aggregators (e.g. Green Button Connect My Data)

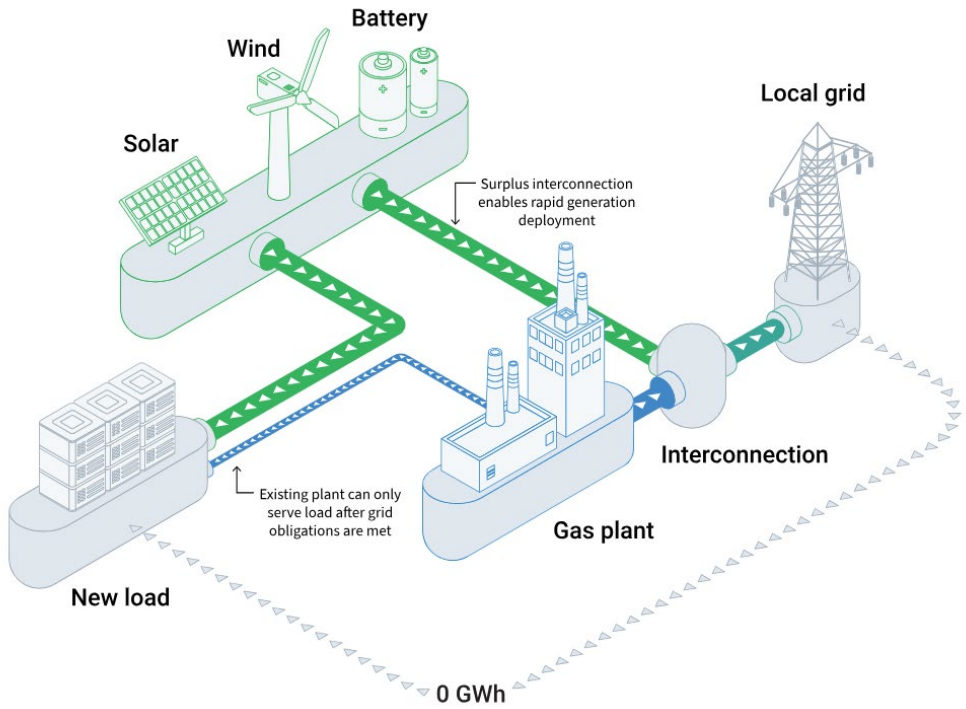
BYO tariffs can accelerate large-load interconnection while protecting other customers

- BYO tariffs can take many forms, but the core principle remains the same: large loads can receive service quickly by paying for new power resources and protecting other ratepayers from these costs
- Large loads could leverage existing points of interconnection through Clean Repowering and Power Couples

Customer-Led Procurement			Utility-Led Procurement		
Co-located *(at the same point of interconnection)*			**Not co-located** *(contracted off site)*		
Totally islanded	**New generation behind the meter**	**New load behind existing point of generator interconnection**	**Customer-contracted power purchase agreement**	**Utility-contracted, sleeved power purchase agreement**	**Utility-owned dedicated resource**
Completely isolated from the grid, for example as laid out in Utah Bill SB 132	Energy from on-site generation netted against the contracted capacity as in AEP Ohio's Data Center Tariff	New load and generation connected through an existing generator interconnection agreement, called a Power Couple	Off-site purchase agreement, usually in wholesale markets, such as the 1.17 GW deal recently announced by Google in Missouri, Texas, and West Virginia	Off-site purchase agreement including the utility as a contracting party, usually in vertically integrated utility regions like Georgia	Dedicated utility resources for large load customers not already included in traditional planning, such as Entergy's gas turbines supporting the Meta project in Louisiana

Source: RMI (2026)

How a Power Couple Works



Source: RMI (2025)

BYODC allows large loads to invest in load flexibility that can directly benefit other customers and the grid

- BYO tariffs can include demand-side resources like energy efficiency, load flexibility, and VPPs to meet a large load's capacity needs
- Leveraging these resources can provide other benefits to customers and the grid like VPP participation incentives and deferral of costly distribution-system investments

Source: Xcel Energy (Feb 2026)

Source: Voltus (June 2026)

Legislative Considerations for BYO Tariffs + BYODC

Legislative Approach	Considerations
"Baseline" Large Load Tariffs	• Create "baseline" large load tariffs to protect other ratepayers from the costs incurred to serve a large load's capacity needs
Allow Diverse Capacity Sources	• Allow large loads to bring new energy resources, load flexibility, and investment in demand-side resources like efficiency and VPPs • Consider restricting new generation resources to clean technologies to align with clean energy policy goals
Integrate with Grid Planning	• Ensure that customer-funded resources are integrated into utility generation, transmission, and distribution planning • Account for location and timing of DER dispatch to maximize the grid benefits of BYODC
"Speed to Power" Mechanism	• Allow regulators to create a "speed to power" incentive (like faster interconnection) for large loads that bring verifiable capacity • Create a market for transferable capacity credits so large loads can invest in grid modernization, efficiency, and distributed energy resources

Policymakers can take three steps when considering BYO solutions

Clarify the Policy Objective	• What is the primary challenge we are trying to solve? (e.g. load growth from data centers, customer affordability, reliability, etc.) • Identify which customers and grid needs are in scope and consider defining metrics of success
Identify the Relevant Solution	• Match the policy objective to the most relevant BYO solution based on the value each solution provides • Evaluate the current policy landscape and consider whether one solution or a portfolio of approaches is appropriate
Tailor to State-Specific Needs	• Consider how the solution(s) fit within the state's policy, regulatory, and market structure • Direct utility regulators to consider key policy parameters and integrate the solution(s) into existing planning processes

Questions?

Matthew Land
Senior Associate, US Program
matthew.land@rmi.org