Distributed Capacity Procurement: A New Tool for Utilities

SPEAKER

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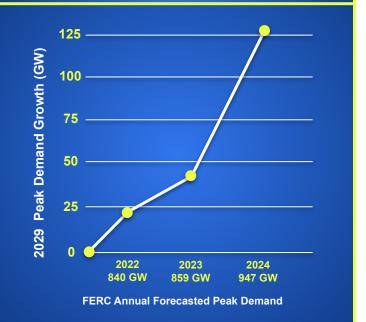
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Kleinman Center for Energy Policy | April 11, 2025

Utilities face the dual challenge of **maintaining affordability** and building fast enough to support economic growth.

Nationwide 5-year load growth forecast has increased by a factor of five



Manufacturing Electrification Data Centers Arizona Public Service CASIO \bigcirc Duke ERCOT **Georgia Power ISO-NE** MISO NYISO **Pacific Northwest** PJM SPP

Source: Grid Strategies Strategic Industries Surging: Driving US Power Demand, December 2024

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Near-Term Load Drivers

Distributed Energy Resources

Powering the Grid of Tomorrow

DERs are small-scale power generation or storage technologies located near end-users such as: solar panels, battery storage, smart thermostats, and electric vehicles.

How DERs Work:

- Generate or store energy locally
- Connect to the grid through smart inverters and meters
- Communicate with utilities to balance supply and demand in real-time
- Provide excess energy back to the grid when needed

How DERs Support the Grid and its Customers

- Enhance grid flexibility and reliability
- Reduce strain on centralized power plants
- Empower customers to transform their buildings into productive grid assets

DERs have the potential to provide up to 20% of total electricity generation by 2050 (U.S. EIA) and reduce peak demand by up to 50% (NREL).

The Math Behind the Impact

What if utilities deployed DERs quickly and at scale?

Annual Breakdown



If each utility deployed 1MW of accredited capacity on 500 buildings, that would result in 500MW of new capacity.

If **50 utilities** repeated this **every year**, we'd achieve an annualized deployment rate **25 GW**.

The Long-Term

Potential

That's ~2% of today's entire U.S. grid capacity deployed in 12 months!

The Future Grid

Immediate Impact: While we wait for large-scale transmission infrastructure and centralized plants to come online, DERs can fill critical capacity gaps now.

Cost-Effective Growth:

Strategically placed DERs help avoid expensive and lengthy infrastructure upgrades.

A Balanced Grid: Combining utility-led DER deployment with centralized solutions builds a smarter, more adaptive grid.

Distributed Capacity Procurement The path to unlock grid value at scale by accelerating utility-led DER deployment in your territory



- **Affordability**: Lowers system costs through grid value maximization and competitive local supply chain.
- Reliability: Enhances resilience, provides backup power, and improves community preparedness.
- Clean Energy: Accelerates solar, storage, and efficiency adoption, reducing emissions and bills.
- Equity: Prioritizes underserved communities, to promote energy justice, and reduce energy burden disparities.
- Economic Development: Attracts investments, creates jobs, and stimulates innovation in the territory.
- Faster Time to Power: Leverages modular DERs for rapid response to grid needs and electrification efforts.

How it Works: Roles & Responsibilities

• THE DCP MODEL •

Our goal is to help utilities accelerate the deployment of distributed assets, delivering flexible system-level capacity that reduces costs to all customers by smoothing peak demand and avoiding or deferring the need for CTs/peakers, as well as reducing costly T&D system upgrades as demand grows rapidly.

Sparkfund simplifies the delivery of grid value at scale with key support functions that include:

- ✓ Host engagement
- ✓ Value chain management
- Data and analytics
- ✓ Admin, safety, and compliance

