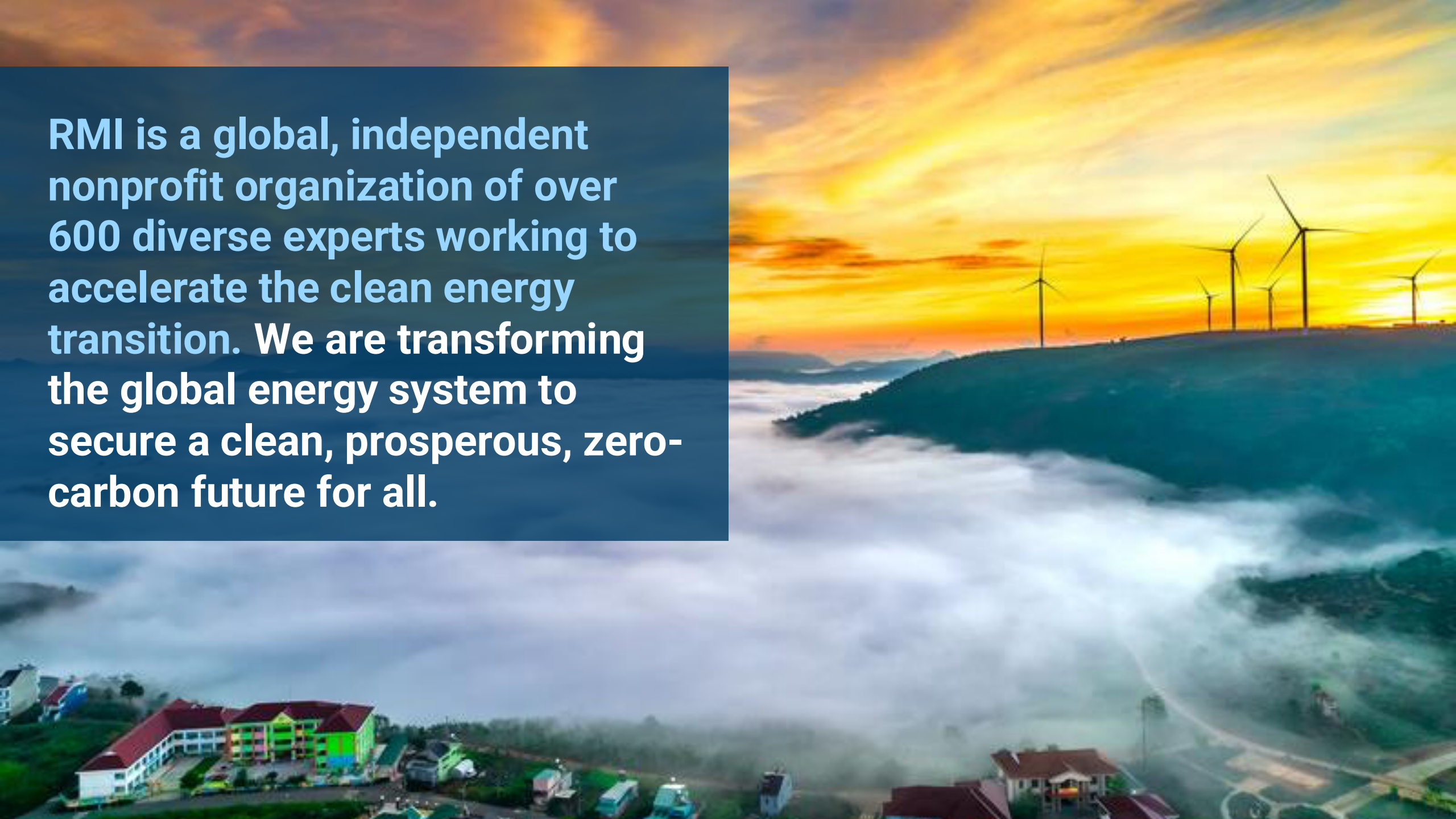
Meeting the Moment

Trends and Opportunities at the Intersection of the Power and Transportation Sectors

Transportation Energy Institute | Annual Conference

Fort Worth | April 21, 2026

Ben Shapiro | RMI



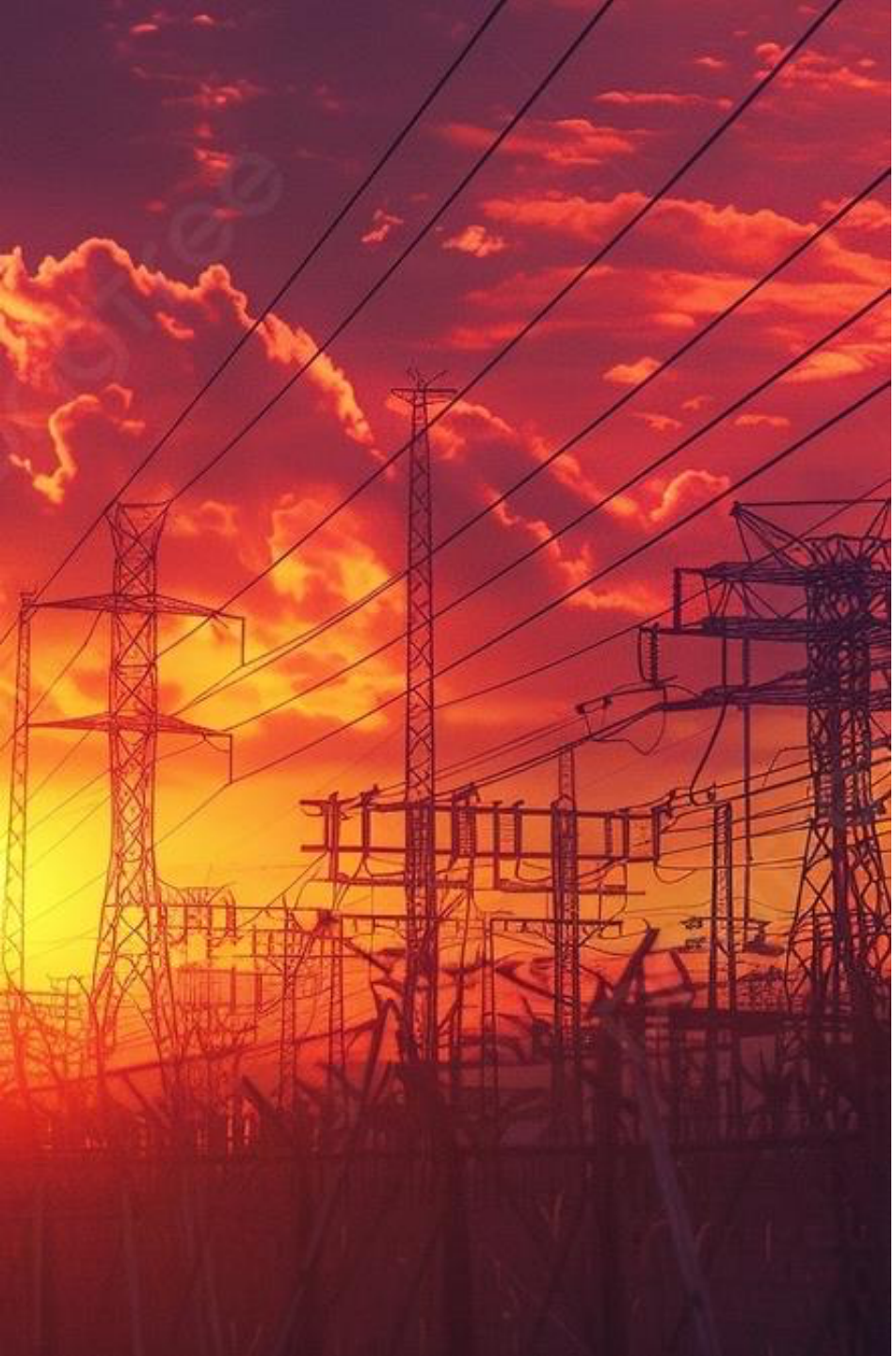
RMI is a global, independent nonprofit organization of over 600 diverse experts working to accelerate the clean energy transition. We are transforming the global energy system to secure a clean, prosperous, zero-carbon future for all.

Agenda

1. Electricity demand growth: perspectives and opportunities.

2. Integrating new electric loads and what this might mean for electricity rates.

3. The EV opportunity for fuel retailers.



A few takeaways, upfront.

1. **Electricity demand is increasing. We can meet the moment.**

2. **How well we plan the transition to a largely electric future will directly affect costs.**

3. **Electric vehicles represent an increasingly important business opportunity for fuel retailers.**

Electricity Demand Growth

Perspectives and Opportunities

IRPs anticipate load will grow 25 percent by 2035

electricity demand in IRPs (megawatt-hours)

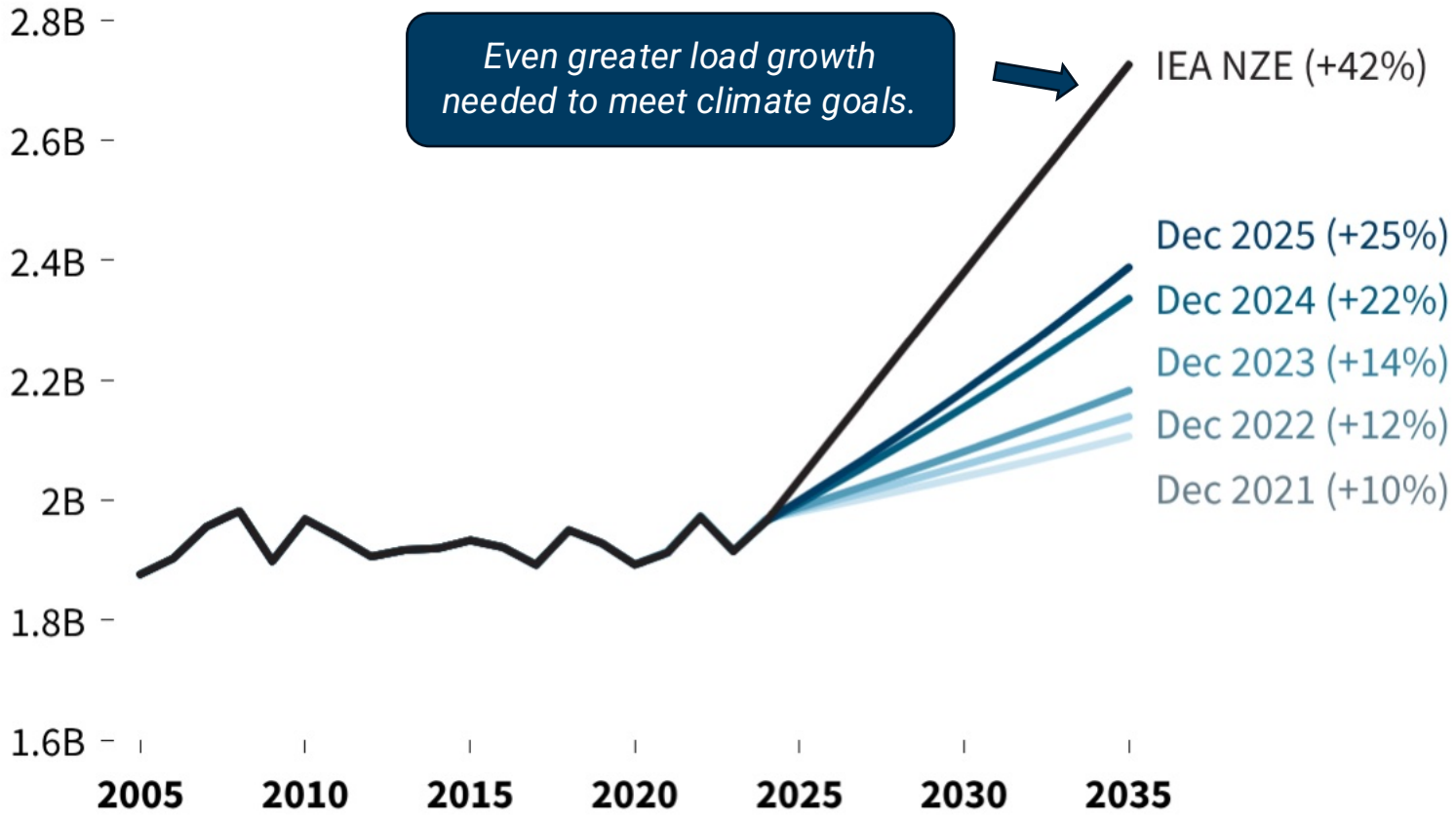


Chart includes projections from 132 IRPs, covering 47% of electricity delivered to US customers.
% change refers to years 2023 to 2035.

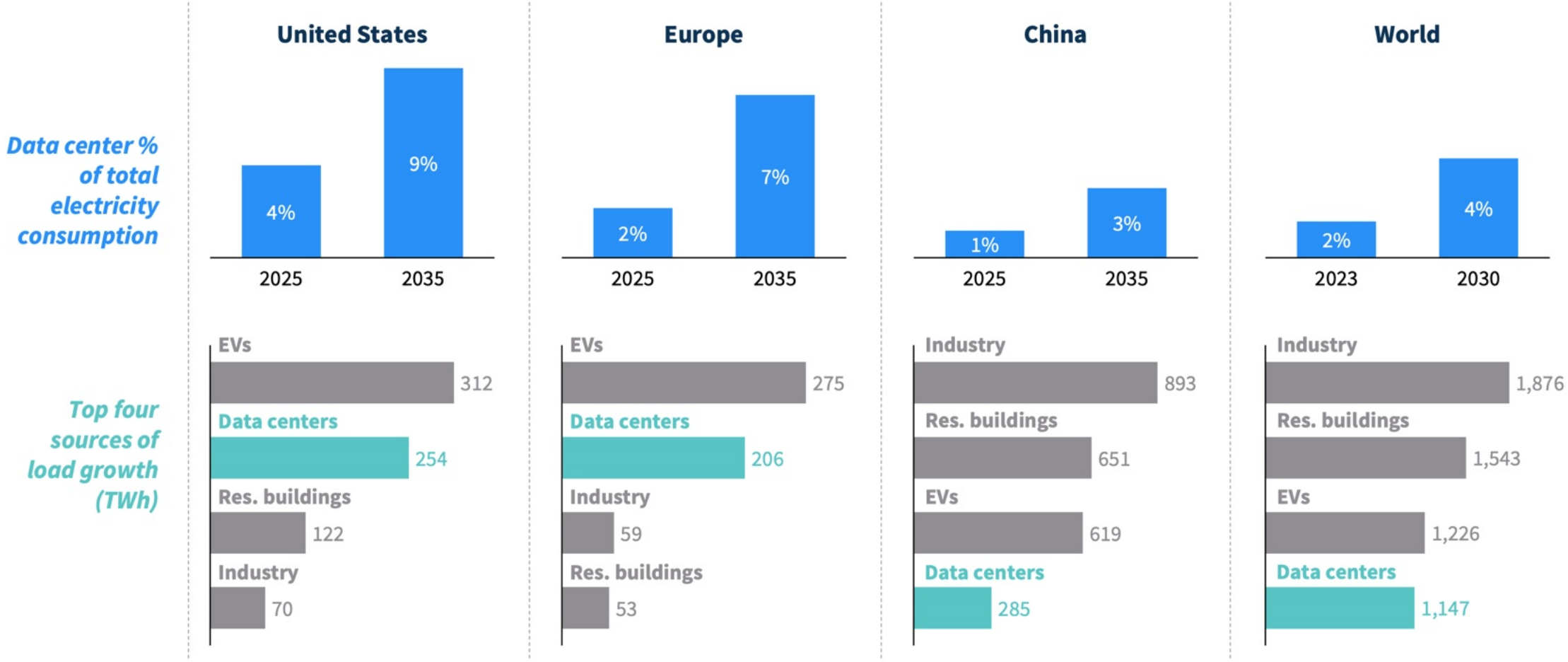
Source: RMI Engage & Act

Demand for electricity is growing in the US and globally – and forecasts keep rising.

IRP: Integrated Resource Plan
IEA: International Energy Agency
NZE: Net Zero Emissions

It’s not just AI or data centers.

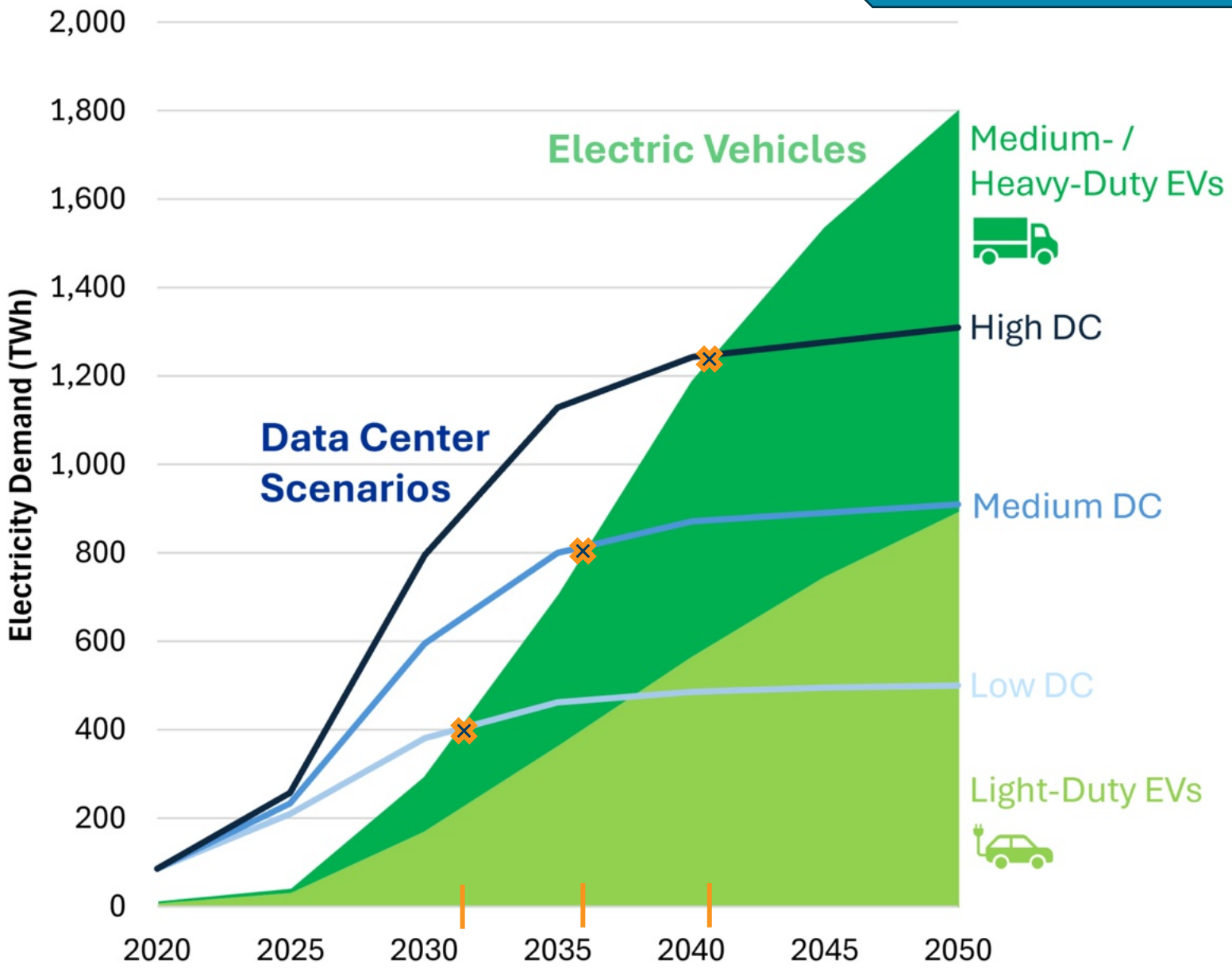
Even in the three largest markets, data centers will make up less than 10% of overall electricity demand in 2035.



Industry excludes heavy industry. Residential buildings includes air conditioning, heat pumps, household appliances, and others.

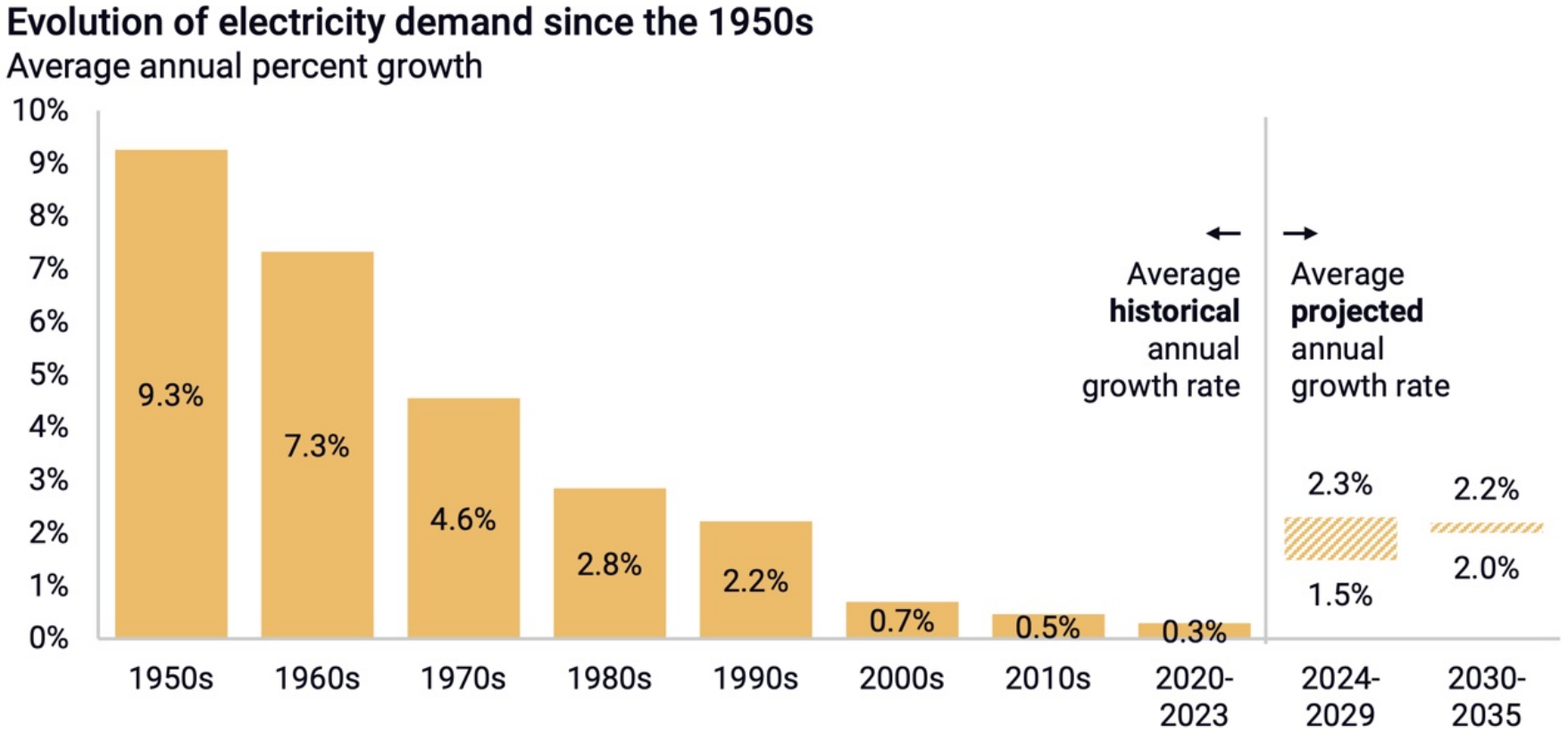
Source: BloombergNEF, New Energy Outlook 2025.

In the US, EV charging will be the dominant source of new power demand over time.



Source: Electric Power Research Institute, Data Center Load Growth in Context; Powering Intelligence 2026

Despite the fanfare, utilities' current demand growth forecasts are much *lower* than growth rates from 1950-2000.



Source: EIA Monthly Energy Review, Rhodium Group. Note: Ranges for future projections correspond to low and high emissions scenarios.

- Current forecasts are a **sharp uptick relative to 2000-2023** growth rates.
- However, even at the top end of forecast growth rates, demand growth will **pale in comparison** to US experience in the **20th century**.

Source: Rhodium Group 2024, Taking Stock 2024: US Energy and Emissions Outlook

Lessons from the 20th Century.

In the past, we saw (much) more rapid growth, while electricity rates fell.

Exponential demand growth

US utilities' electricity sales **grew** by 380% between 1960 and 2000.

Falling prices

Inflation-adjusted average US rates **fell** by 20% over the same period.

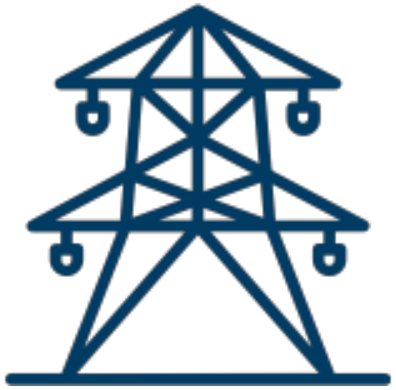
Source: EIA, Monthly Energy Review, August 2025

How did we do it then?

Three fundamental strategies helped manage prices while demand skyrocketed.

Innovation

Utilities took risks on new technologies that helped drive down costs.



Investment

Massive deployment of generation & transmission to ensure sufficient supply.

Utilization

System utilization improved 18% between 1980 and 2000.

How are we planning to do it today?

Planned capacity additions are mostly wind and solar, but recent updates have shifted toward gas.

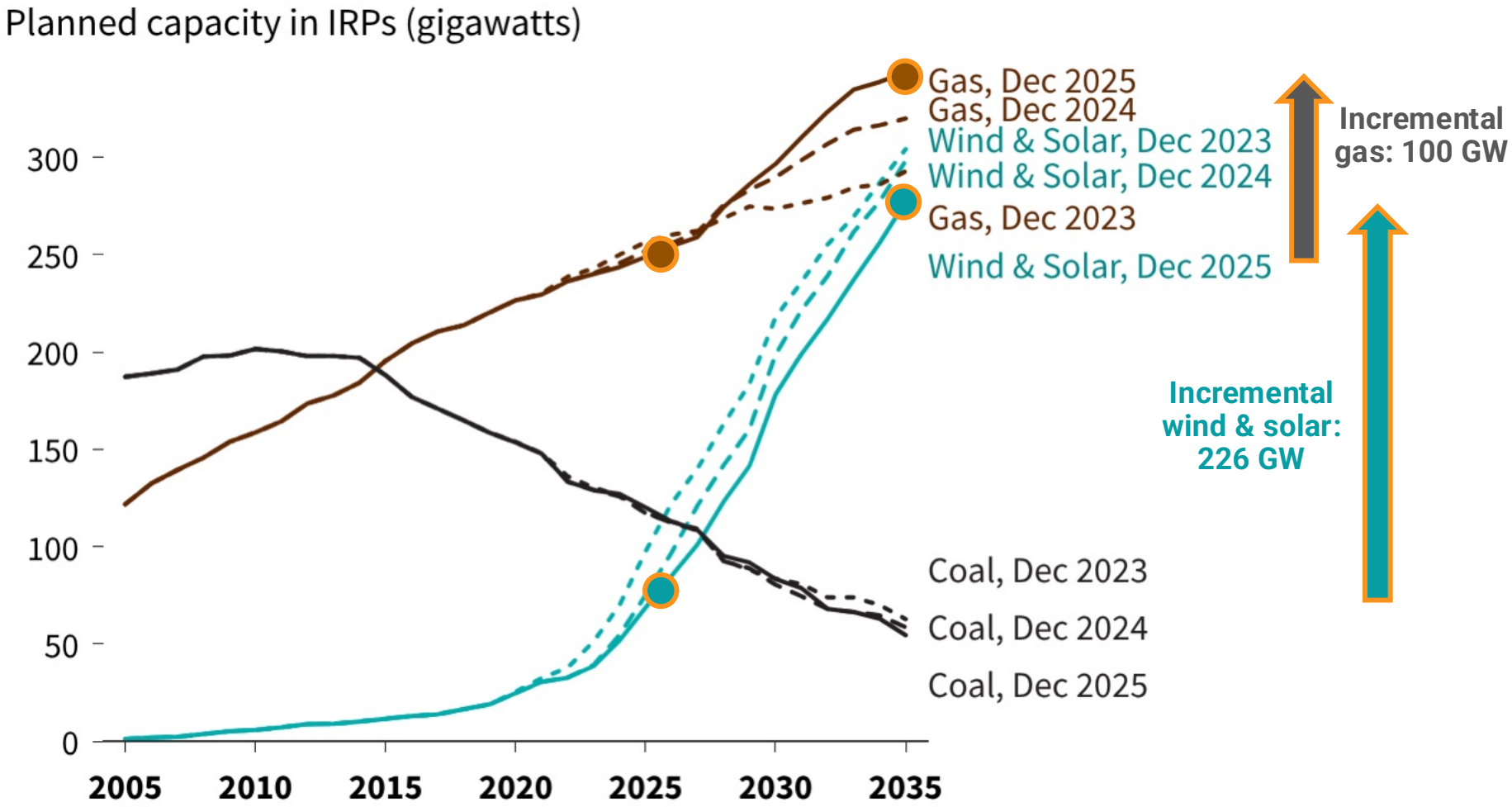
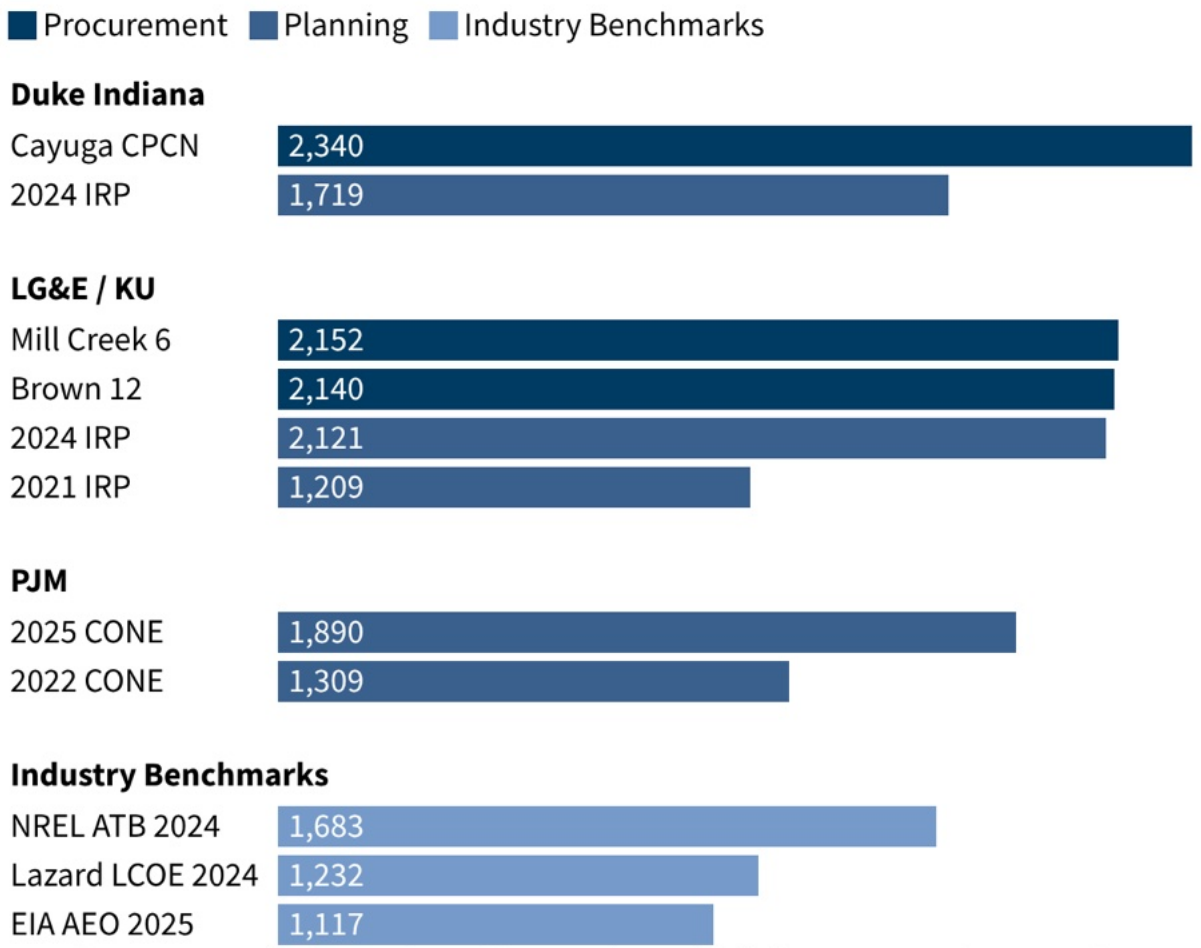


Chart includes projections from 132 IRPs, covering 47% of electricity delivered to US customers.

Source: RMI, The State of Utility Planning, 2025 Q4.

Selected cost estimates for combined-cycle gas turbines ($/kW)



Note: All costs converted to $2030 using 2.3% expected annual inflation, as per FRED's Apr 2025 Consumer Price Index.

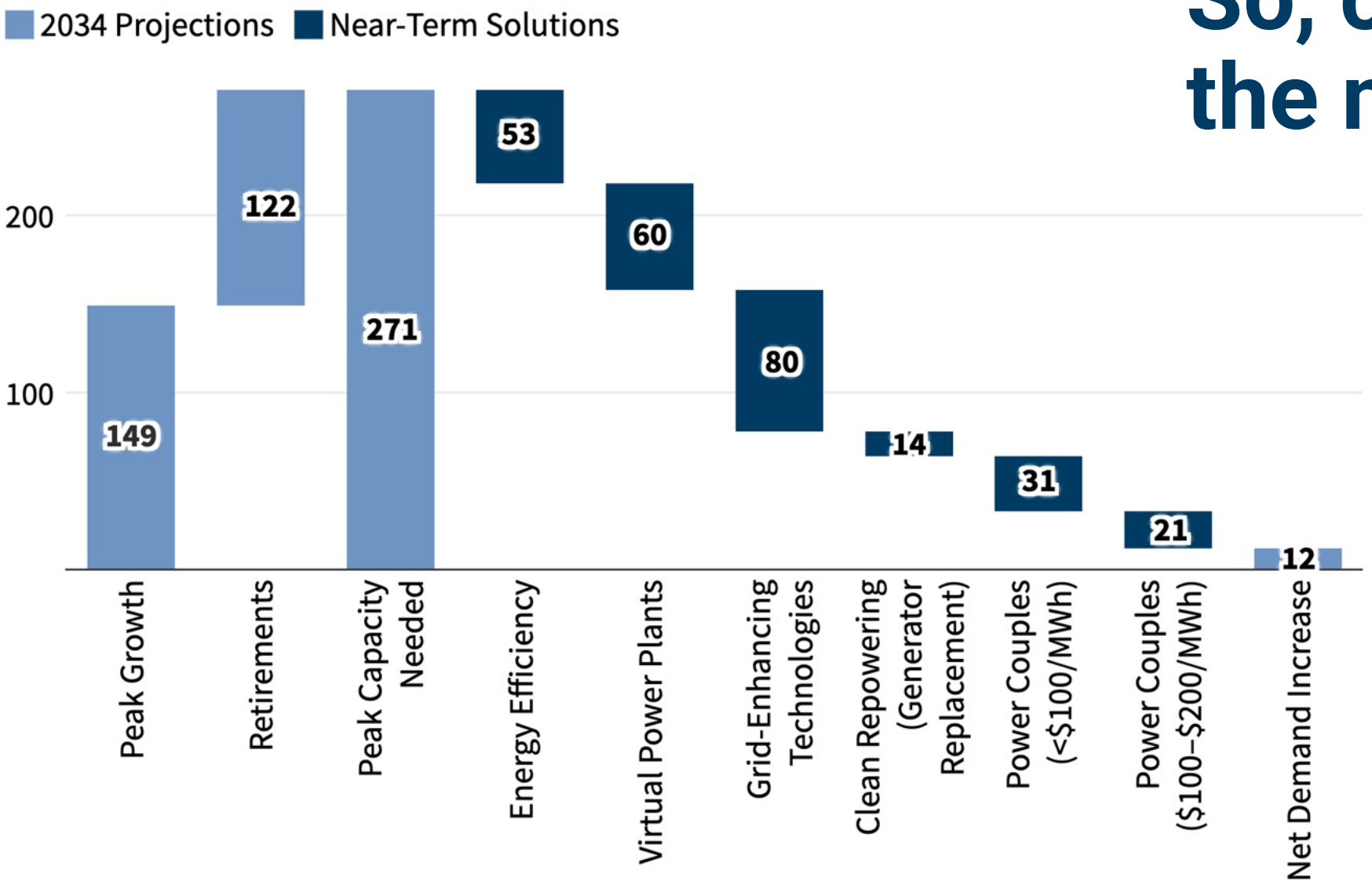
Source: Cayuga CPCN (Duke Energy Indiana, Feb 2025); Report on Duke Indiana's 2024 IRP (Energy Futures Group, Feb 2025); LG&E, KU Propose $3.7B Power Buildout (POWER Magazine, Mar 2025); 2024 Joint IRP (LG&E and KU, Oct 2024); 2025 CONE Report for PJM (Brattle, Apr 2025); Sixth Review of PJM's RPM VRR Curve Parameters (Brattle, Nov 2024); 2024 ATB Data (NREL, Jul 2024); Lazard LCOE+ (Lazard, Jun 2024); Assumptions to the AEO 2025 (EIA, Apr 2025).

If you can get a turbine, it'll cost you.

- **Planning cost assumptions growing year-over-year, exceeding levels commonly assumed in industry benchmark studies.**
- **Procurement costs are reaching even greater heights.**
- **Price when contracts are signed may be significantly higher than price estimated during planning.**

Source: RMI 2025, Gas Turbine Supply Constraints Threaten Grid Reliability; More Affordable Near-Term Solutions Can Help

Potential 10-year peak demand growth and near-term solutions (GW)

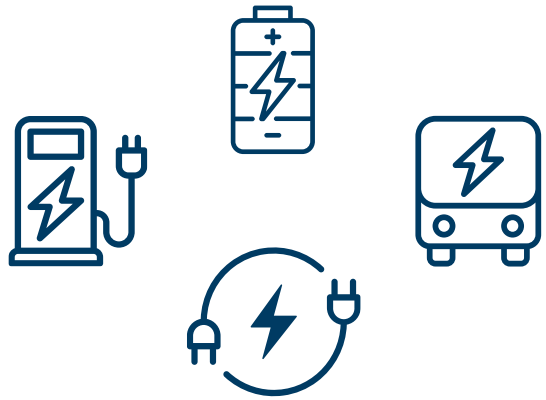


So, can we meet the moment?

- **It's not a crisis.** Demand is forecast to grow at a rate much lower than it did in in the 1960s and 1970s.
- **We have better tools.** New technologies & digital strategies are available in 2026 that can help meet emerging needs.

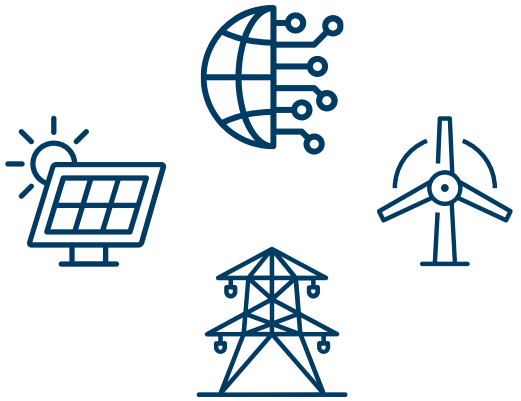
Source: RMI, https://rmi.org/gas-turbine-supply-constraints-threaten-grid-reliability-more-affordable-near-term-solutions-can-help

Several key opportunities can help us rise to the challenge.



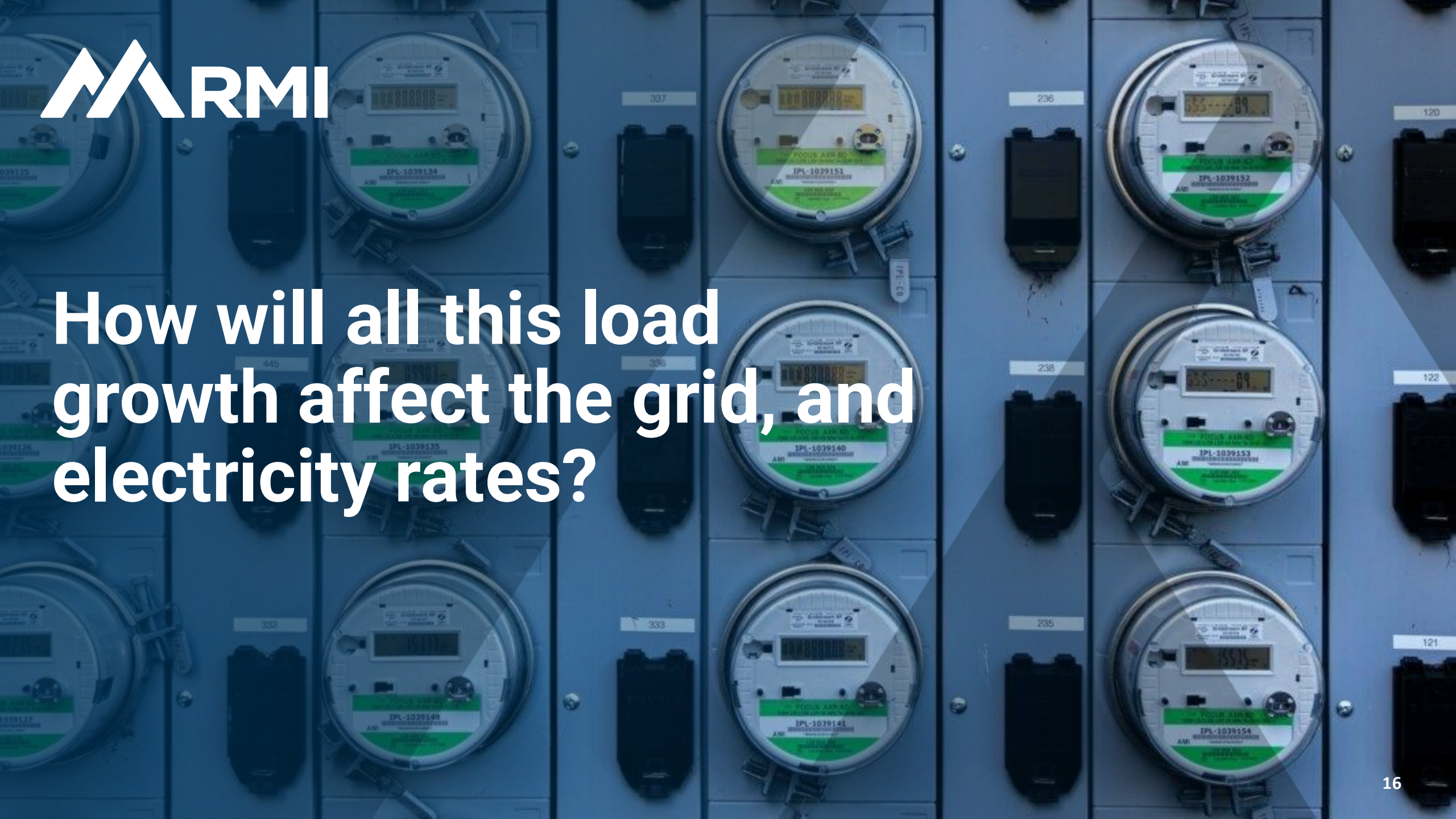
Managing Demand

- Virtual power plants
- Load flexibility
- Efficiency
- Behind-the-meter solutions
- On-site storage



Enabling Supply

- Grid-enhancing technologies
- Streamlined permitting
- Clean repowering
- Co-location of clean energy and data centers



How will all this load growth affect the grid, and electricity rates?

What will load growth do to prices?

Depends who you ask.

ENERGY

Electricity prices rising by double the rate of inflation. Data center demand means no relief ahead, analysts say

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TRENDS

Microsoft Commits to Full Electricity Cost Recovery in Data Center Communities

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Xcel releases new plan to charge data centers for its power — and reduce bill impacts for Coloradans

By Ishan Thakore · Apr. 7, 2026, 2:28 pm

DIVE BRIEF

Data center demand spike could drive 79% ERCOT price hike in 2027: EIA

In a high-demand scenario, data centers could drive 2025-2027 annual load growth 15% higher in Texas and 4.7% higher in the PJM Interconnection, the Energy Information Administration said.

Published March 16, 2026

California study finds electrification can put downward pressure on electric rates

Wide adoption of electric vehicles that can displace fossil fuel combustion with renewable power can also lower rates by about 3 cents per kWh, if the needed distribution grid upgrades are built efficiently and with cost constraints, a study found.

DECEMBER 10, 2025 WILLIAM DRISCOLL

New study finds no link between rising electricity rates and AI data centers

By Mark Tapscott Washington Stand Apr 9, 2026 0

Expert Blog

EVs Already Reduce Electricity Rates–and They Can Do Even More

EVs reduce electricity rates for all utility customers, and recent legislation accelerates a cycle of more EVs, better climate, better health, and lower rates.

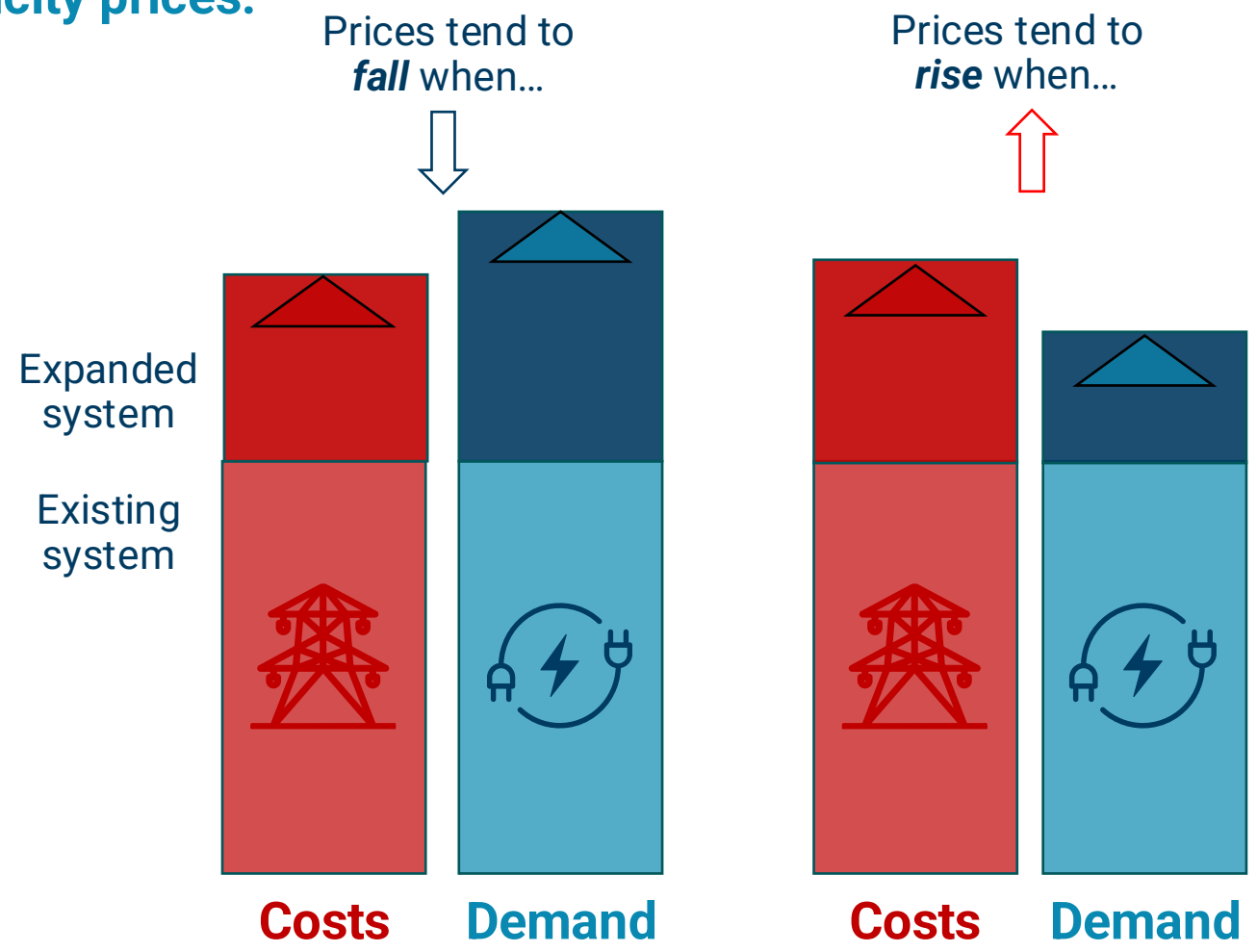
September 9, 2024

How does the math work?

Load growth can increase or decrease electricity prices.

Dependent on changes in:

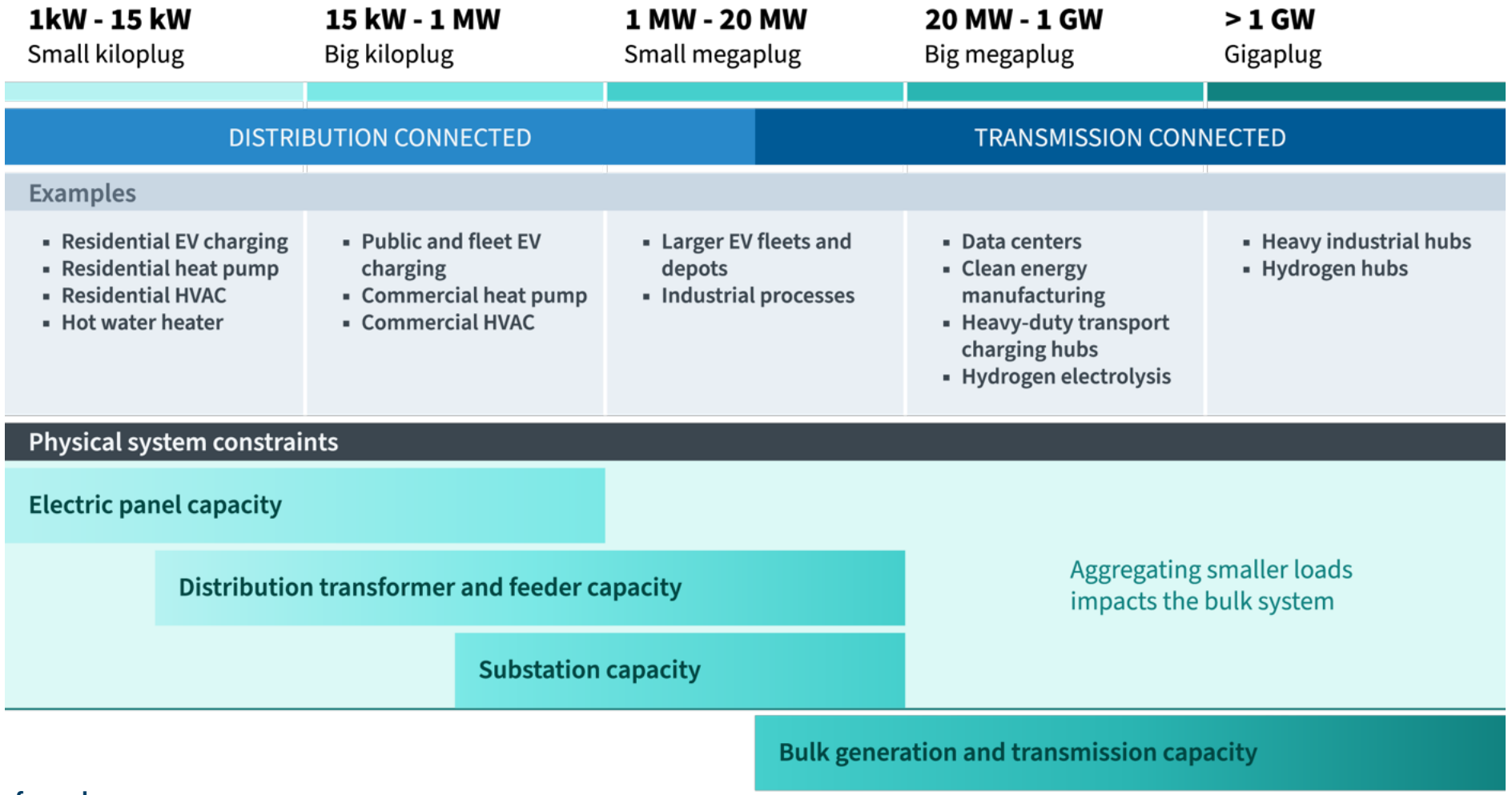
1. **Asset utilization**
2. **System costs**
3. **Cost allocation and recovery**



Source: Adapted from Lawrence Berkeley National Lab, 2026

To plan effectively, we have to think holistically.

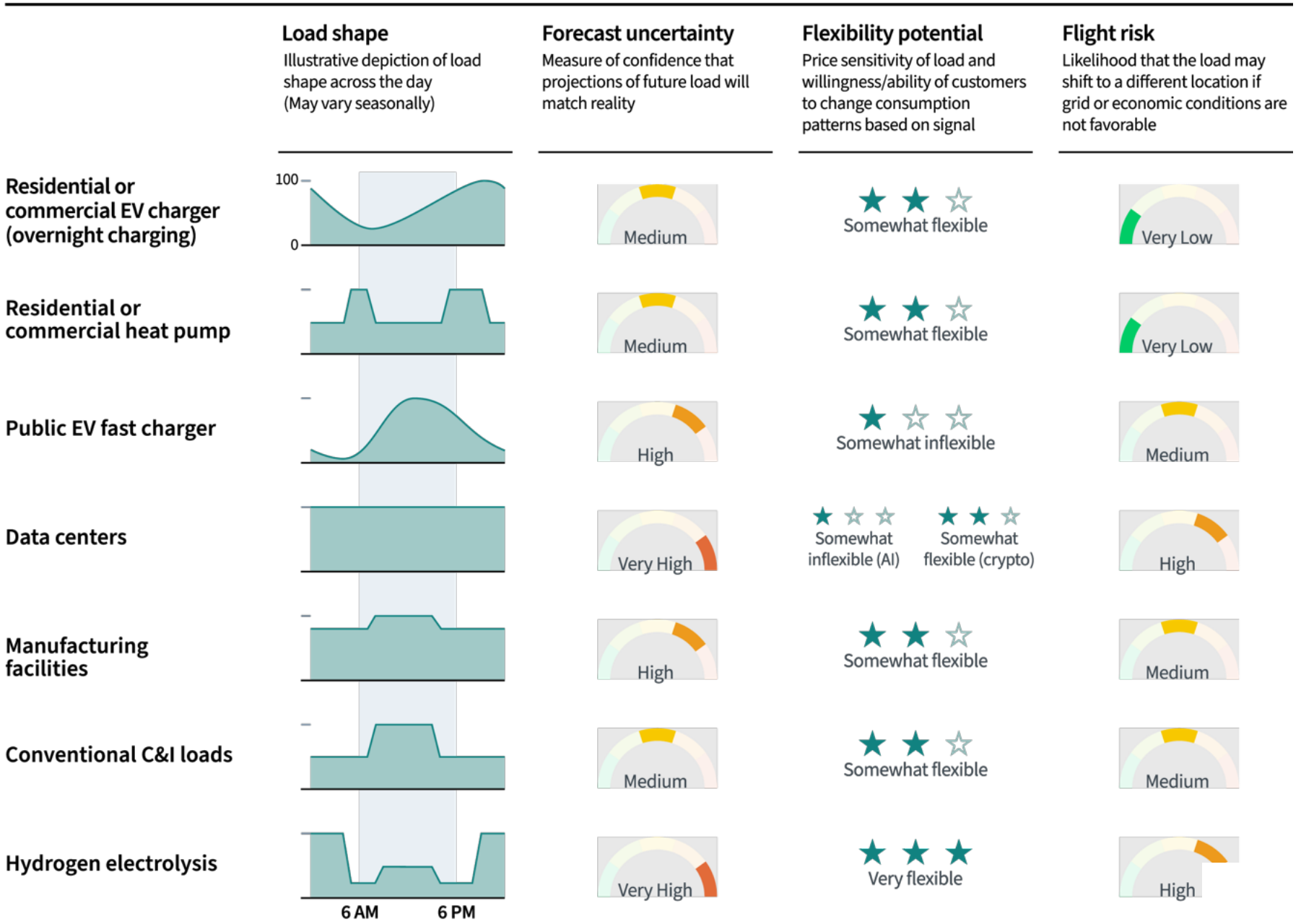
Load growth impacts all levels of the grid.



Source: RMI 2025, Get a Load of This: Regulatory Solutions to Enable Better Forecasting of Large Loads

Not all electric load is created equal.

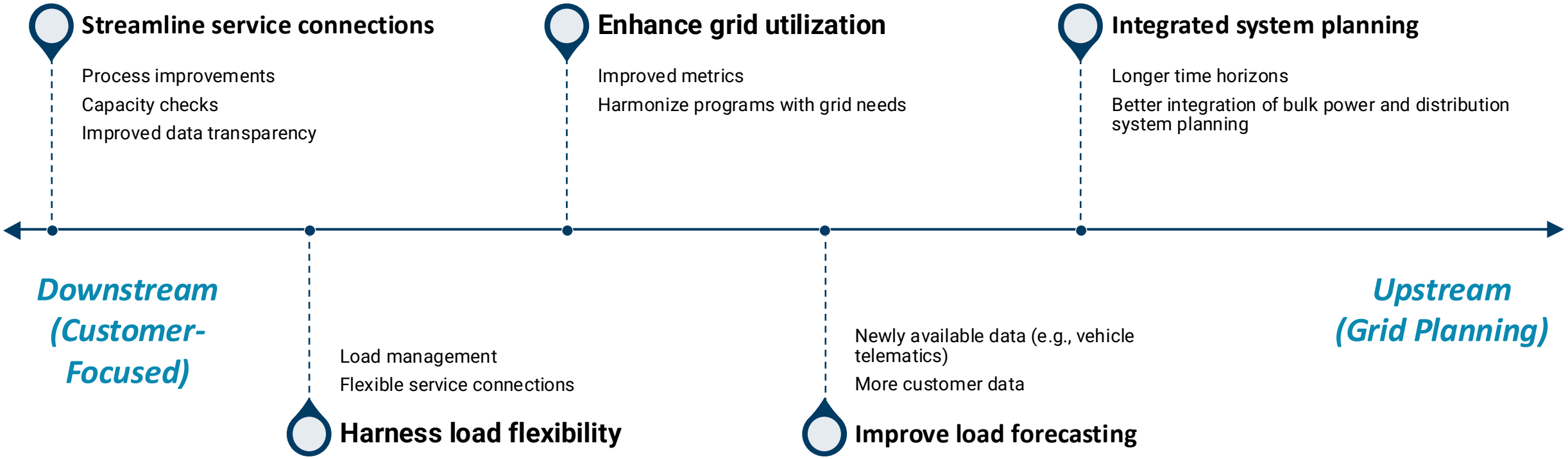
Different types of new load can have dramatically different impacts on the broader grid.



Source: RMI 2025, Get a Load of This: Regulatory Solutions to Enable Better Forecasting of Large Loads

Many opportunities exist to integrate load growth while supporting affordability.

Several examples.



The EV Opportunity for Fuel Retailers

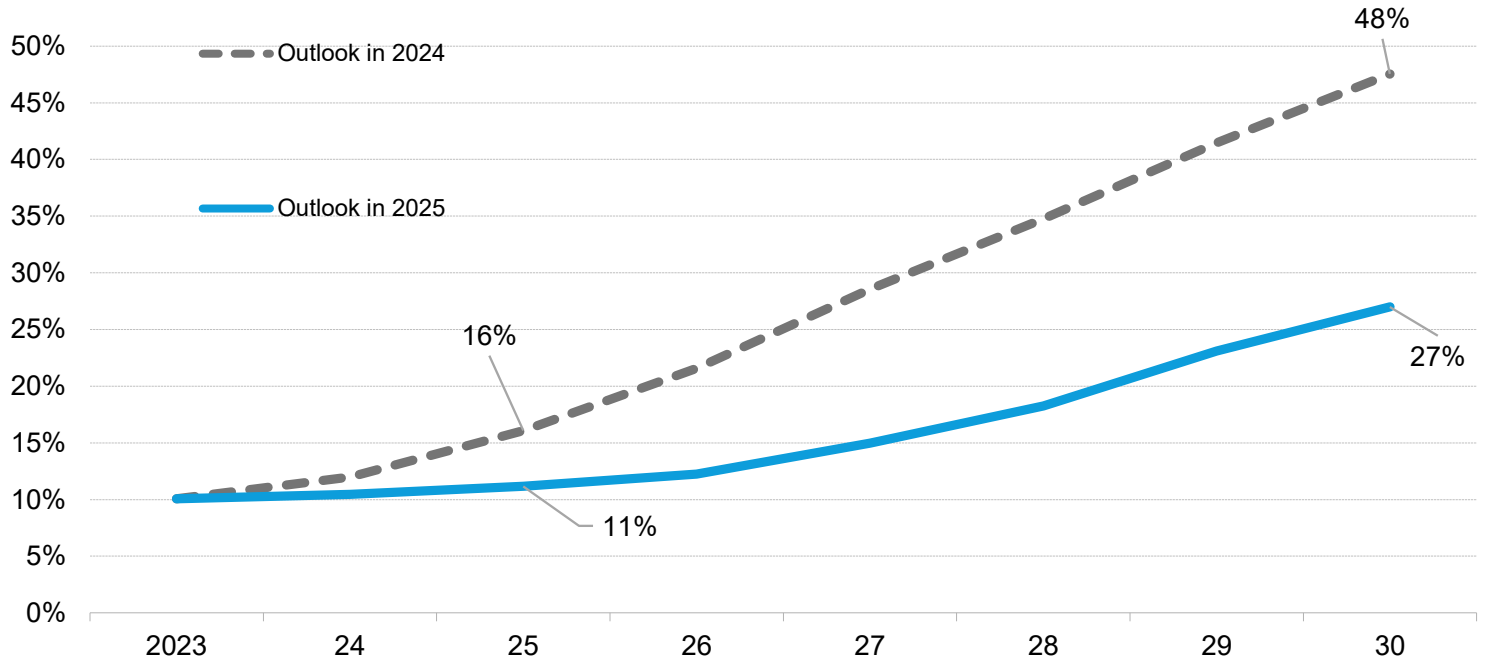
How much business might EVs provide in the coming years?

Down, but far from out.

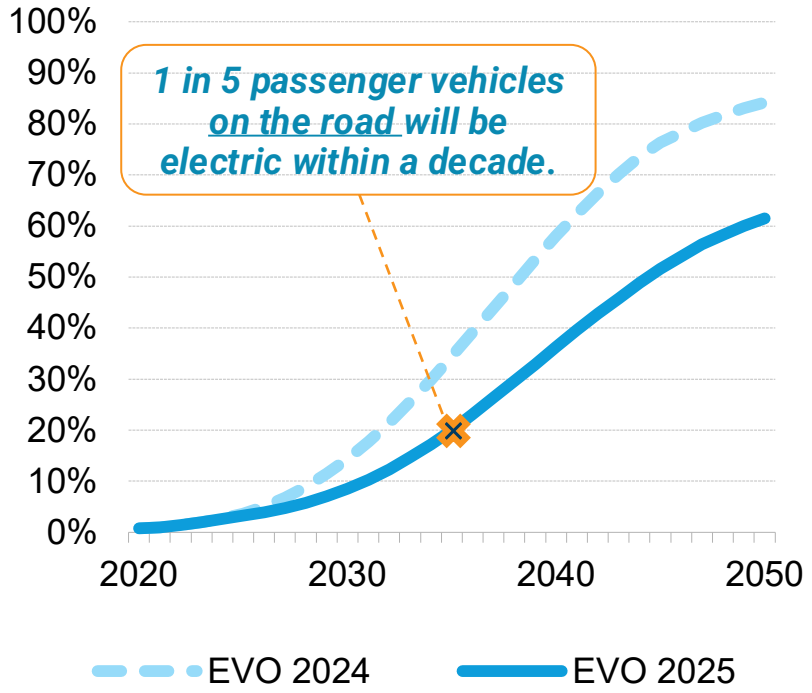
Despite policy rollbacks, EVs represent a growing portion of the vehicle fleet.

US Passenger EVs, Outlook Comparison – Economic Transition Scenario

Share of total car sales



Share of fleet



Source: BloombergNEF, Electric Vehicle Outlook (EVO) 2025

Consumer sentiment from EV drivers is high – and growing.

Large share of current EV drivers likely to continue choosing electric models.

"Overall **satisfaction** among current battery electric vehicle (BEV) owners is **at its highest level** since the study's inception in 2021."

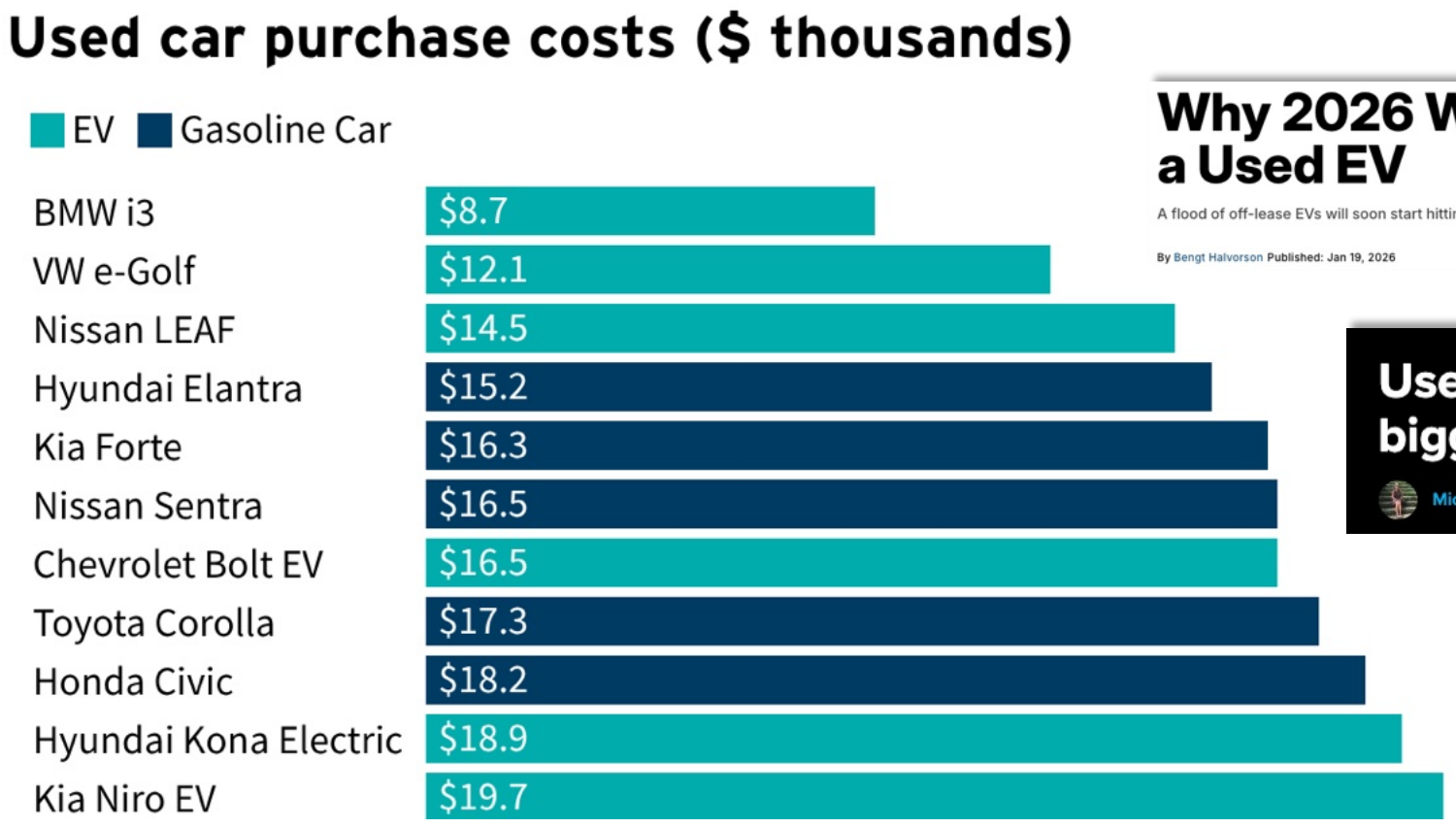
"Notably, **nearly all** owners of new BEVs (96%) say they **would consider purchasing or leasing another BEV** for their next vehicle."

"The **availability of public charging** is by far the **most improved** index factor in both premium and mass market BEV segments."

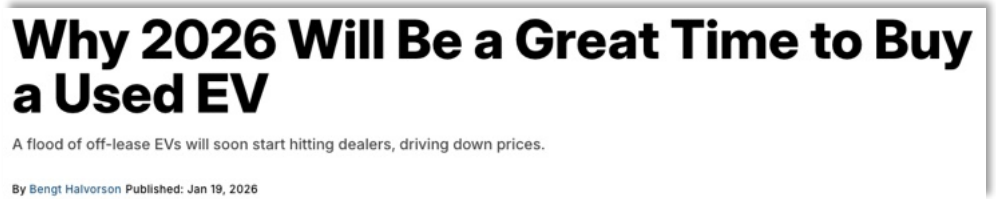
Source: JD Power 2026 U.S. Electric Vehicle Experience (EVX) Ownership Study

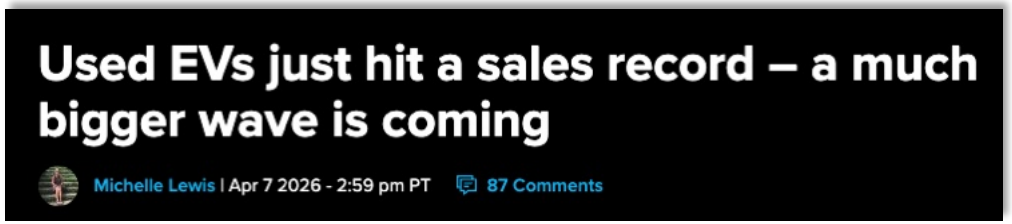
Used EVs are increasingly cost-competitive.

Hundreds of thousands are becoming available as leases begun with former EV incentives roll off.



Note: Models showcase most common low- and mid-cost vehicle options.





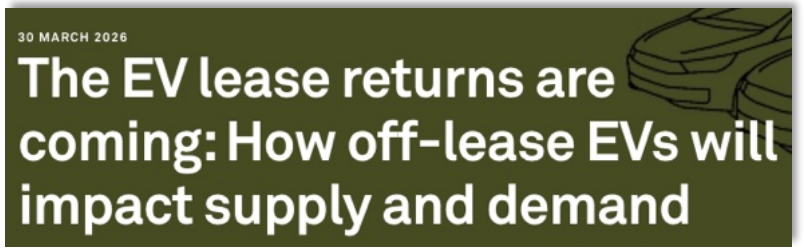
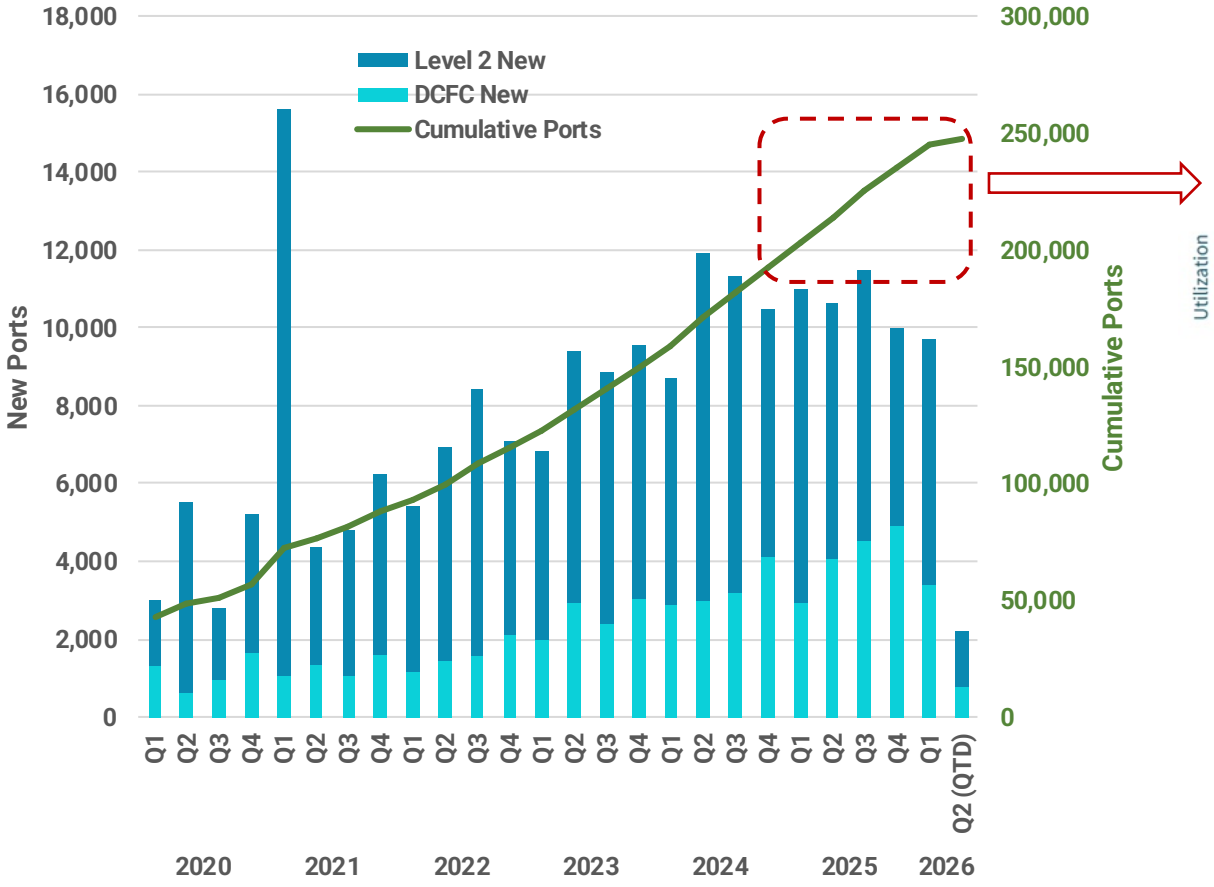


Chart Source: RMI, adapted from CarGurus
Headlines sources: Car and Driver; Electrek; S&P

Demand for public charging is also strong.

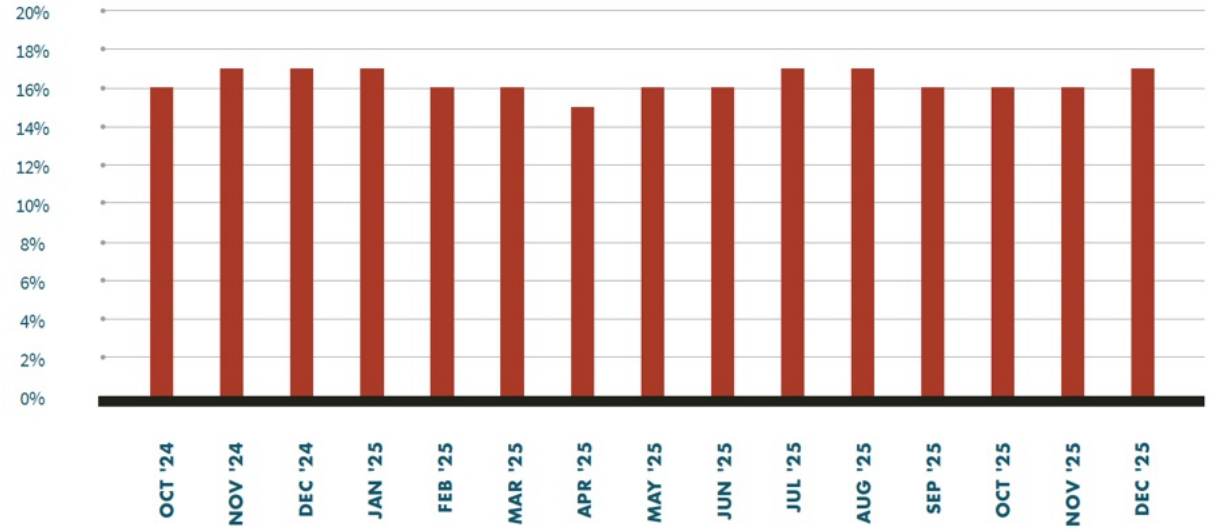
Public charger utilization is holding steady as deployed charging ports rapidly accelerate.

Charging Ports Installed by Open Date



Source: Atlas Public Policy, Charging Deployment Dashboard (accessed 15 Apr 2026)

Monthly Average Utilization DCFC

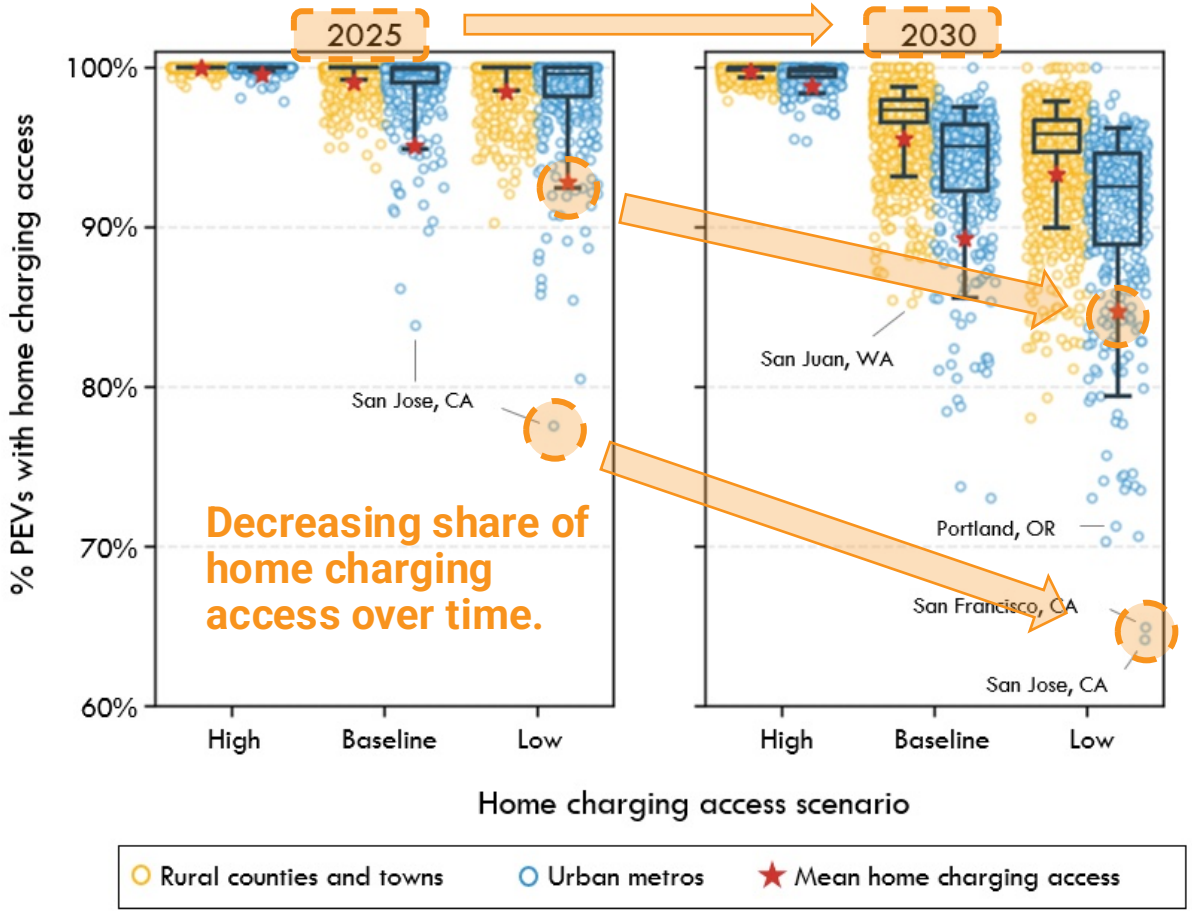


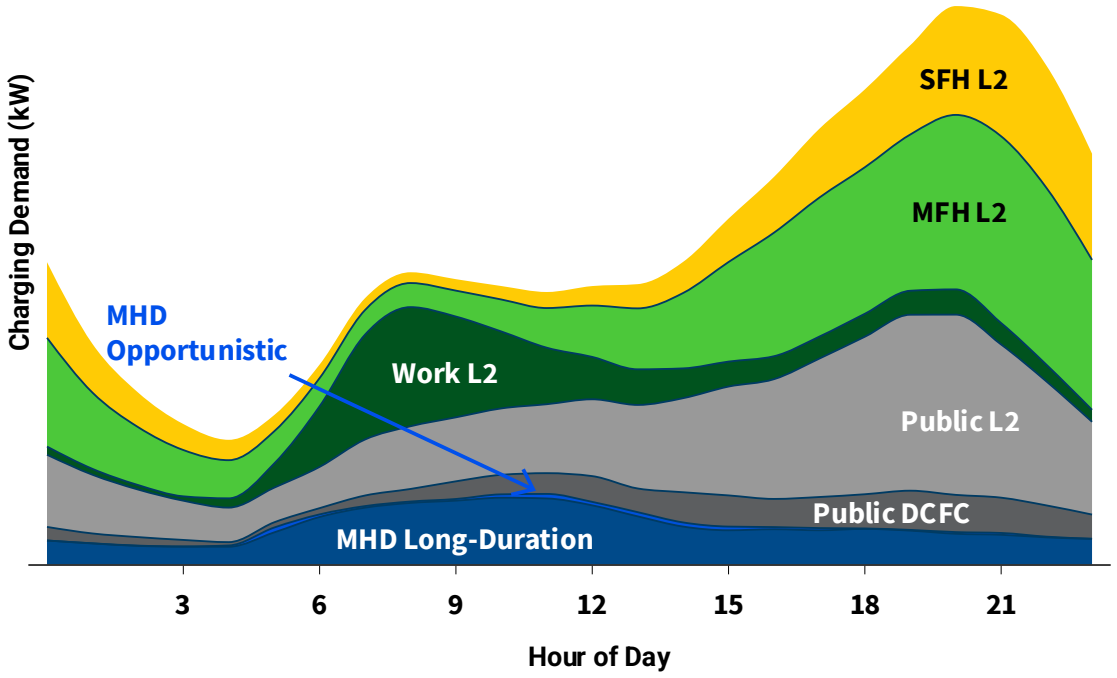
Steady DCFC utilization while deployed fast chargers increased 1.6x.

Source: Transportation Energy Institute 2026, EVSE Charger Performance Analysis, 2025 Q4

Many new EV drivers will need more public charging.

Mass market adoption and demographic diversity decreases single-family home charging share.





SFH: Single Family Home | **MFH**: Multifamily Home | **L2**: Level 2
DCFC: DC Fast Charger | **MHD**: Medium-/Heavy-Duty

Source: National Renewable Energy Laboratory 2023, The 2030 National Charging Network

Source: RMI GridUp EV Load Forecasting Tool

EV charging presents a strong opportunity for incremental retail sales.

Several studies find notable uptick in non-charging sales revenue from proximity to charging.

89%

of EV drivers make a purchase while stopped to charge.

4%

increase in foot traffic from 150-meter proximity to DC fast charging.

$1/min

incremental in-store retail sales revenue.

Sources: Consumer Reports 2024 (Blink); Babar & Burtsch 2023; Transportation Energy Institute 2022 (Target).

Recap: Several reasons to be bullish on the EV opportunity.

Growing fleet share	Despite policy shifts, EVs will make up meaningful share of fleet in near future.
Strong consumer sentiment	Survey data makes clear consumer EV sentiment is strengthening.
More public charging demand	Many new drivers will need more public charging as market expands and single-family home charging is less of a given.
New retail sales potential	Data suggests incremental non-energy retail sales opportunity from EV drivers.

Those takeaways, again.

1. Electricity demand is increasing. We can meet the moment.

2. How well we plan the transition to a largely electric future will directly affect costs.

3. Electric vehicles represent an increasingly important business opportunity for fuel retailers.

Thank You!

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