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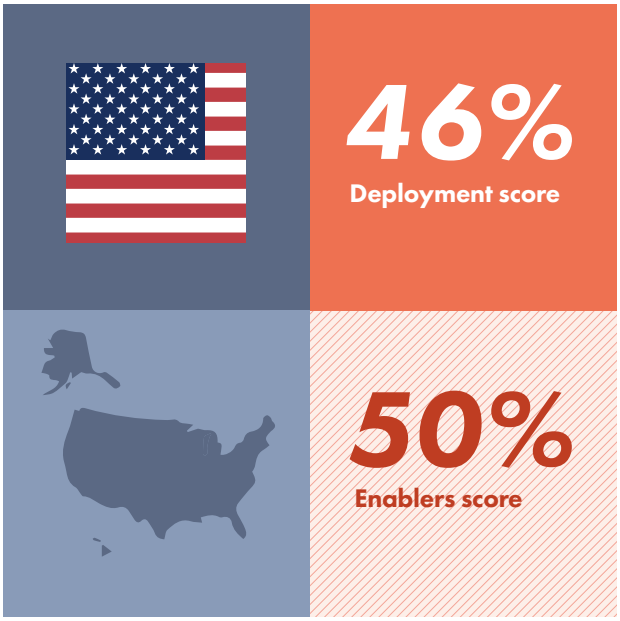
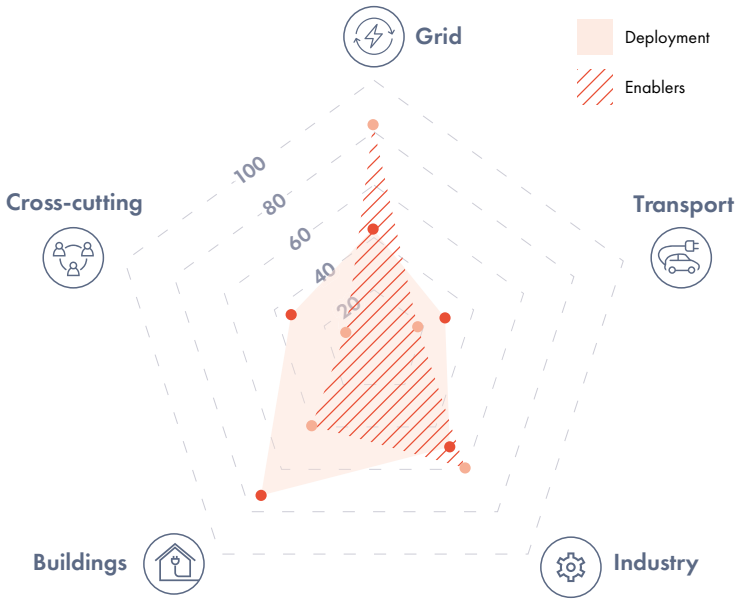
UNITED STATES OF AMERICA





The United States has put in place a strong set of market and grid policies that enable competition, flexibility, and investment, contributing to an Enablers score of 50%, slightly above its 46% Deployment score. Grid policy is its clearest strength. Federal Energy Regulatory Commission (FERC) Orders 1920, 2023, 881, and 2222 establish important foundations for long-term transmission planning, interconnection reform, more dynamic use of existing grid capacity, and participation of distributed energy resources in wholesale markets. The U.S. also benefits from strong innovation capacity, relatively favorable economics for solar, storage, and passenger electric vehicles (EVs), and significant state-level leadership on electrification.

However, deployment remains uneven across sectors. Electricity already supplies 56% of buildings' final energy and 26% of industrial final energy, but only 0.3% of road transport energy; passenger EVs reached about 10% of sales in 2025. At the same time, more than 2 TW of generation and storage are waiting in interconnection queues, compared with roughly 1.5 TW of existing generating capacity. These constraints are becoming more consequential as electricity demand grows: the International Energy Agency (IEA) projects more than 420 TWh of additional U.S. electricity demand through 2030, around half of it from data centers.

The grid-delivery gap is at the heart of the challenge. The U.S. has many of the market rules and technologies needed to support faster electrification, but transmission buildout, interconnection, permitting, and regional implementation have not kept pace with demand. Rapid growth from data centers and other large loads risks increasing costs and congestion if those customers are treated only as new demand rather than as potential sources of flexibility. California and Texas illustrate different approaches already emerging at the subnational level, including load shifting, large-load queue reform, transmission expansion, and rapid storage deployment.

Closing this gap could start with fully implementing FERC Orders 1920, 2023, 881, and 2222, while accelerating grid-enhancing technologies, flexible connection agreements, and transmission and distribution investment. Large loads such as data centers could also be encouraged to provide flexibility through load shifting, storage, clean generation, and other grid services, so that new economic growth strengthens rather than strains the power system.

A second priority is restoring durable support for end-use electrification. Recent changes in federal consumer incentives, vehicle policy, and international climate engagement have reduced the consistency of the national policy signal. Federal support has shifted rather than shrinking across the board: incentives and mandates for some end-use and renewable technologies have narrowed, while support for nuclear, firm power, domestic energy infrastructure, and large-load supply has increased. In the near term, states, regional transmission operators and independent system operator, utilities, industry, and remaining federal authorities can help maintain electrification momentum through stable EV and building policies, corridor and depot charging, targeted support for industrial electrification, and electricity-rate structures that improve the economics of switching away from fossil fuels.

A third priority is policy continuity and coordination. Strong state standards and incentives can continue to drive deployment, but

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they cannot fully substitute for a durable national direction. Re-establishing long-term federal clean-electricity, manufacturing, and electrification incentives; setting clearer sectoral goals; and linking workforce programs directly to grid, industrial, building, and transportation investment would give businesses greater certainty and create a stronger platform for renewed U.S. leadership. Although this profile focuses primarily on federal policy, state and city governments are sustaining important electrification momentum. California continues to fund charging infrastructure for light-, medium-, and heavy-duty vehicles, while Texas has approved a batch process and curtailable pathways for connecting large loads such as data centers. New York City's Local Law 97 sets emissions limits for most buildings over 25,000 square feet, encouraging efficiency and electrification upgrades. These initiatives advance progress across transport, grids, and buildings and provide models for broader adoption, but their uneven geographic reach means they cannot fully substitute for consistent national policy.

In the table below, 'Deployment' indicators include sales of EVs and heat pumps, grid congestion and flexibility metrics, and share of clean power, as well as key indicators influencing the business case, such as cost differences versus fossil technologies. 'Enablers' covers government plans, incentives, and regulations. See Methodology Annex for details.

NORMALIZED SCORE	AREAS OF STRENGTH	AREAS FOR IMPROVEMENT
GRID & POWER MARKET **13/30** DEPLOYMENT **25/30** ENABLERS	Strongest enabler category: mature wholesale markets, demand response, storage support, long-term planning and grid-enhancing technology rules. Solar weighted average cost of capital is 3.2%, storage is 3.1% of annual generation, and clean power is 43%.	More than 2 TW of power capacity is in interconnection queues versus ~1.5 TW of existing capacity and grid investment is ~0.4% of GDP. Permitting and flexible connections should accelerate to support the growing load especially coming from data centers (above 420 TWh of added demand through 2030, according to IEA), while ensuring fair distribution of costs and prioritizing clean power supply additions.
TRANSPORT **6/20** DEPLOYMENT **4/20** ENABLERS	Passenger EVs reached ~10% of 2025 sales and cars have a favorable total cost of ownership. State vehicles and charging programs remain important sources of momentum.	Electricity is only 0.3% of road-transport energy, and other vehicle modes are ~0-2% electric. Federal vehicle credits ended in 2025 and charging support narrowed in 2026; smart/bidirectional charging remains state and utility led.
INDUSTRY **10/20** DEPLOYMENT **12/20** ENABLERS	Hard-to-abate electrification pilots are growing, with technical assistance and strong equipment-efficiency standards. U.S. manufacturing and innovation provide a strong base for electric process heat and grid equipment.	Electricity is 26% of industrial final energy and costs ~3x gas. Large federal industrial-decarbonization grants have been substantially reduced or cancelled, weakening support for commercial-scale deployment. However, targeted implementation grants, industrial technology-validation programs, energy-management assistance, and federal loan financing remain available.
BUILDINGS **15/20** DEPLOYMENT **8/20** ENABLERS	Electricity supplies 56% of building energy; smart meters cover ~70-80%, electric cooking is ~50-60%, and heat-pump deployment is comparatively strong. Leading states provide a substantial policy base.	Residential electricity costs ~3x gas, while major federal home energy incentives ended after 2025 or mid-2026. Codes, rebates and flexibility programs vary widely by state, creating uneven economics.
CROSS-CUTTING **3/10** DEPLOYMENT **1/10** ENABLERS	Deep apprenticeship, skilled-trades, STEM and technical-education systems provide a workforce base, while U.S. innovation, finance, and state institutions can support rapid scaling.	There is no current national electrification target or federal carbon price, no domestic fossil-subsidy phaseout plan, and construction costs are high. Federal clean energy support and international climate engagement have also narrowed.
TOTAL SCORES	**46/100** DEPLOYMENT **50/100** ENABLERS	

Scores may not sum perfectly due to rounding. Data quality concerns: ***low.*** *The U.S. had solid coverage; the main gaps are detailed heavy-duty EV data and consistent state-level comparability for some enabling policies*

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The goal of this index is to inspire action, maximize strengths, and work toward improvement opportunities. All stakeholders have a role to play, but policy often sets the tone for sustained, market-based change.

We link these findings to recommendations based on the WMBC's 10 Policy Principles to Seize the Electric Advantage. Near-term priorities are to use existing FERC authorities and state/regional action to cut the cost and time of serving new load; make data centers and other large customers flexible rather than passive sources of peak demand; preserve state EV and building market signals as federal consumer incentives recede; and focus finance on industrial electrification and domestic grid equipment.

California and Texas show different routes for load shifting, transmission, storage and large-load connection reform, while continued state, city and private-sector engagement can preserve a platform for renewed U.S. international leadership.

STATUS ■ **STRONG SIGNS OF IMPLEMENTATION** ■ **MIXED IMPLEMENTATION** ■ **NOTABLE GAPS**

POLICY PRINCIPLE	RECOMMENDATIONS
1. Reinforce clean electrification as a shared strategic priority across international forums	*This has not been assessed for country comparison, as electrification remains at an early stage of discussion in international forums. Emerging examples of best practice are highlighted under "Best practice policies" in the "Findings for policymakers and advocacy" section.*
2. Set clear targets and timelines for electrification	Use state-led sector targets and common metrics for transport, buildings, industry, and grid readiness, supported by regional coordination and federal data, so progress is comparable and investable.
3. Realign financial incentives and taxation to support electrification	Use durable state incentives, rate reform and remaining federal clean electricity/manufacturing credits to close electricity-fossil cost gaps; avoid abrupt incentive cliffs and further expansion of fossil support.
4. Ensure electricity markets reward clean, flexible supply and demand	Complete FERC Order 2222, expand time-varying rates and demand response, and make data centers and other large loads provide flexibility, storage, clean resilient power or non-firm service where it's cost-effective.
5. Deliver modern electricity systems including grids and enabling infrastructure	Implement FERC Orders 1920 and 881, accelerate transmission, distribution and GETs, and adapt proven state/regional practices such as California load-shift reforms and Texas large-load/transmission planning.

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STATUS ■ **STRONG SIGNS OF IMPLEMENTATION** ■ **MIXED IMPLEMENTATION** ■ **NOTABLE GAPS**

POLICY PRINCIPLE	RECOMMENDATIONS
6. Streamline permitting and grid connection processes	Implement FERC Order 2023, publish queue/cost/backlog data, set predictable permitting milestones, and expand flexible/non-firm connections; use transparent large-load batch processes where appropriate.
7. Mobilize finance and de-risk investment	Focus remaining public finance and loan guarantees on transmission, storage, grid equipment and first-of-a-kind industrial electrification, paired with private offtake and transparent project pipelines.
8. Use regulatory standards and mandates to accelerate deployment of electric solutions	Use state authority and remaining federal equipment standards to sustain zero-emission vehicle, building, appliance, and industrial efficiency requirements, harmonizing model standards where possible and pairing them with affordability measures.
9. Integrate electrification into industrial strategies and trade policy	Treat industrial electrification as competitiveness policy by supporting electric process heat, batteries, transformers, power electronics, and charging/grid equipment while improving electricity-gas economics and domestic deployment.
10. Build the skilled workforce needed to electrify the economy	Align apprenticeships, community colleges and state workforce grants with grid, EV charging, building, industrial, and data center needs; expand portable credentials, instructors, and pre-apprenticeships.