

The Prairie Rose Wind Farm in Rock and Pipestone Counties delivers homegrown wind power to the grid.

2026 ENERGY FACTSHEET

Tracking MN's clean energy trends

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Wind turbine foundation installation at the Prairie Rose Wind Farm in Rock County.

- For the sixth year in a row, zero-carbon sources supplied the majority of Minnesota's electricity. In 2025, 55% of the state's power came from renewable and nuclear energy, outpacing the national average of 43%.
- Minnesota's power sector emissions remained steady at the state's all-time low, keeping its year-on-year emissions the same from 2024 to 2025.
- Minnesota continued to grow its energy independence, with imports down to 7% in 2025 from 9% in 2024.
- Renewable energy held steady, generating one-third of Minnesota's electricity in 2025. In the past ten years, coal has dropped from 39% of Minnesota's energy mix to 24%.
- Minnesota ranked No. 11 in the nation for overall energy efficiency, according to the 16th edition of the American Council for an Energy-Efficient Economy's State Scorecard. It remains the top-ranked state in the Midwest.
- Since 2001, Minnesota's energy productivity has jumped 38%, including a 8% increase in the past five years.
- Minnesota's Energy Conservation and Optimization program generated enough energy savings in 2022 and 2023 to heat, cool, and power more than 147,000 homes for an entire year.
- Minnesota set a new record for annual EV registrations in 2025, and now nears 100,000 total EV registrations as of January 2026.
- Preliminary data shows Minnesota added 264 MW of solar capacity in 2025 and 29 MW of new natural gas generation. In the past five years, renewables accounted for 98% of all new capacity added.
- Sustainable Aviation Fuel (SAF)'s market continues to provide opportunities for Minnesota to stake a claim in a low-carbon economy. A 111% year-over-year increase in national production for 2025, shows the continued exponential growth of the market.
- Minnesota closed 2025 with 63 MW of live data center capacity, up more than 31% from its 48 MW footprint in 2016. While the state has another 397 MW currently committed or under construction, this remains modest compared to the national pipeline of approximately 48 GW.



The Nordic Solar Portfolio includes approximately 70 megawatts of community solar gardens located across Minnesota, expanding access to locally generated, carbon-free electricity.

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Clean energy deployment in Minnesota in 2025 continued its march forward, despite uncertainty and rollbacks at the federal level. As the federal government began cutting and eliminating clean energy incentives, especially for wind, solar, and electric vehicles (EVs), Minnesota's clean energy progress remained strong. Local municipalities added geothermal projects, and public schools statewide installed rooftop solar. The state saw the expansion of virtual power plants in 2025 and increased interest in emerging battery storage technology. Minnesota also showcased its commitment to the clean energy transition through its investments at all levels of government.

The state's clean energy transition followed wide-ranging paths in 2025. Notably, the Minnesota Public Utilities Commission unanimously approved the $6.2 billion acquisition of ALLETE, the parent company of Minnesota Power, by Global Infrastructure Partners and the Canada Pension Plan Investment Board. The City of Saint Paul advanced several major geothermal heating and cooling projects, including the system at Como Zoo. Industry partners, state agencies, and researchers made meaningful progress toward building a Sustainable Aviation Fuel (SAF) sector. Minnesota's agricultural strengths and climate-smart farming practices position the state well to produce SAF feedstocks at scale. This local and regional approach to the clean energy transition aligns the state's robust skilled workforce, unique mix of natural resources, and innovative business community with Minnesota's growing energy demands.

In addition, virtual power plants gained traction in Minnesota with utilities continuing to scale up programs that manage devices such as air conditioners, water heaters, and smart thermostats that reduce peak demand and can control for market price conditions. Nearly 400,000 devices are now enrolled by electric cooperatives statewide, providing about 200 megawatts (MW) of flexible capacity. Supplementing this growth, Xcel Energy filed its Capacity*Connect (C*C) proposal in October 2025, a distributed capacity procurement program aiming to deploy up to an additional 200 MW of battery storage at local businesses, community, and industrial sites by 2028. The proposal is part of Xcel Energy's broader Upper Midwest Energy Plan, which targets 600 MW of energy storage by 2030, and mirrors a regional shift seen at the Midcontinent Independent System Operator (MISO). MISO received more than six gigawatts of new project requests through its expedited interconnection process, many of which included battery storage, signaling that developers increasingly view battery storage as a mainstream option for providing clean, reliable, and affordable energy. Local, regional, and statewide networks collaborated effectively in 2025, leading to the business community implementing new energy projects across Minnesota, and ultimately working toward the state's commitment to its 100% carbon-free electricity standard required by 2040.

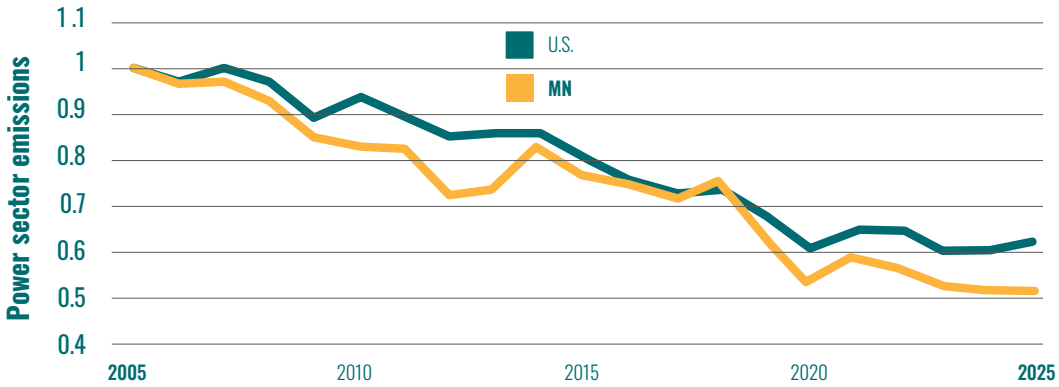
The Minnesota Energy Factsheet is an annual publication from Clean Energy Economy MN (CEEM) and the Business Council for Sustainable Energy (BCSE) that offers a data-driven snapshot of Minnesota's energy sector. It highlights key metrics and emerging trends, with data contributions from BloombergNEF and the Minnesota Department of Commerce. The Factsheet serves as a companion to BCSE's 2026 Sustainable Energy in America Factbook.

This report provides a fact-based overview of Minnesota's energy sector, presenting key metrics and highlighting recent trends.

Overview of Minnesota's Electric Sector

For the sixth consecutive year, zero-carbon energy accounted for the majority of Minnesota's electricity generation. Fifty-five percent came from renewable and nuclear sources, significantly outpacing the national share of 43 percent. Minnesota's clean energy industry employs nearly 64,000 individuals, a new state record, with employment growing at twice the rate of the overall state economy in 2024.

Figure 1: Minnesota power sector carbon (CO^2) emissions vs U.S. emissions

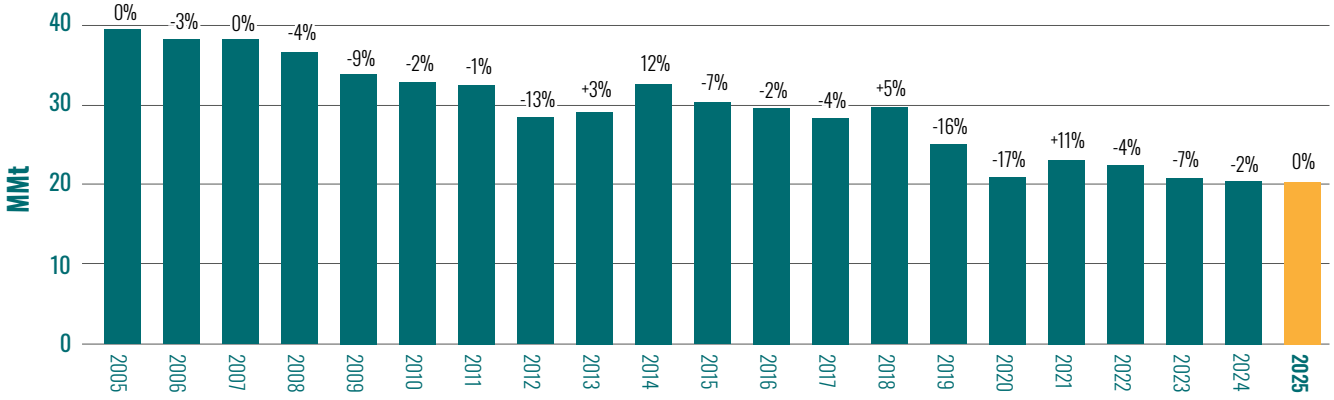


Source: BloombergNEF, EIA

Indexed to 2005 levels

Signed into law during the 2023 Minnesota Legislative Session, Minnesota has a 100% clean energy by 2040 statute that requires that all electricity generated or procured for use in Minnesota be from carbon-free resources by 2040. Minnesota outpaces the nation in reducing power sector greenhouse gas (GHG) emissions. As of 2025, Minnesota reduced emissions by 48 percent relative to 2005 levels, compared to a 38 percent reduction nationally (Figure 1). Furthermore, Minnesota's power sector emissions remained steady from 2024 to 2025, maintaining the state's lowest recorded emissions level (Figure 2).

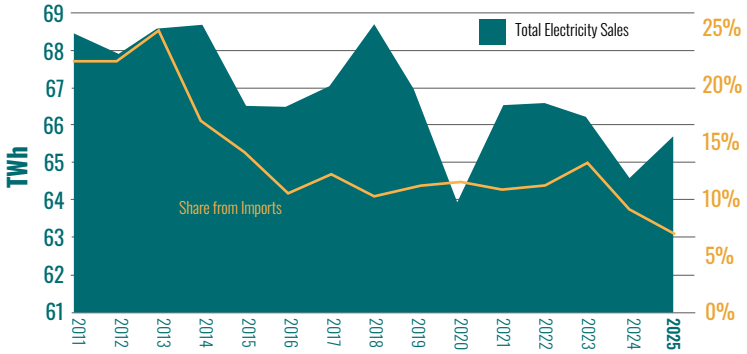
Figure 2: Minnesota power sector carbon emissions with year-over-year percent changes



Source: BloombergNEF, MN Power Emissions. MMt = million metric tons

Minnesota consumed 65.7 terawatt-hours (TWh) of electricity and imported 4.7 TWh in 2025 (Figure 3). The state continued to prioritize its energy independence as imported electricity accounted for only 7 percent of consumption in 2025, down from 9 percent in 2024 and 11 percent in 2016, respectively. Total electricity consumption in Minnesota increased by more than 1 TWh in 2025 after a slight decrease in 2024 (Figure 3).

Figure 3: Minnesota electricity sales and generation



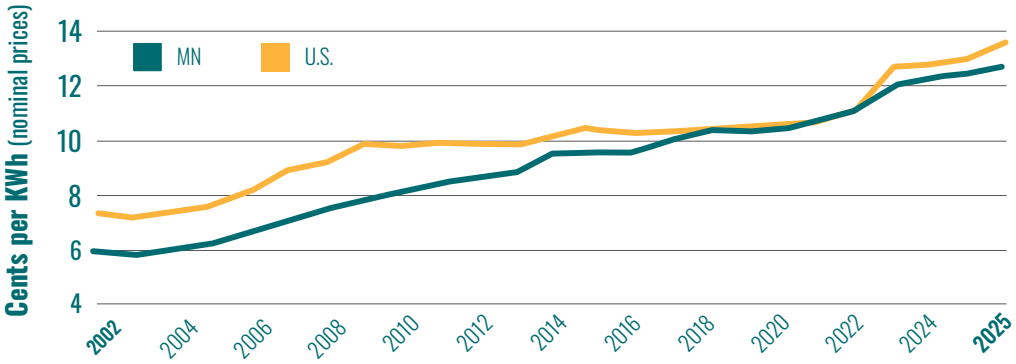
*Green line corresponds with the left axis, yellow line corresponds with the right axis

Source: BloombergNEF, EIA *Note: Excludes generation from fuel oil*

Beyond MISO approving Tranche 2.1, a multi-billion dollar transmission investment, in 2024, MISO's Long-Range Transmission Plan (LRTP) strives to utilize regional system solutions to enhance grid reliability and resiliency while enabling the connection of new and diverse energy resources. Minnesota's utility companies also remain committed to modernizing their infrastructure and expanding energy production as the demand for reliable and affordable energy increases. For example, Xcel Energy began land negotiations in 2025 for their 175-mile Minnesota Energy Connection transmission line, which will begin construction in 2026. In the coming years, Xcel Energy anticipates as much as 4,000 MW of renewable energy, including wind and solar, could connect through the Minnesota Energy Connection. Upcoming transmission investments are expected to increase reliability, enhance resilience in the face of extreme weather, and support the integration of new renewable energy capacity benefitting Minnesota residents and businesses.

Over the last decade, consumer electricity prices in Minnesota, measured on a cents-per-kilowatt-hour (cts/kWh) basis, have continued to rise for residential, commercial, and industrial clients (Figure 4). These increases are due to a number of factors, such as utility infrastructure investments and increasing widespread federal import tariffs. In 2025, Minnesota consumer electric rates averaged 12.67 cts/kWh, up 2.6 percent from 12.35 cts/kWh in 2024 and up 27 percent since 2016 in nominal terms. Minnesota's average electricity prices today are below the U.S. average of 13.63 cts/kWh (Figure 4), up 5.3 percent from 2024 in nominal terms. When adjusting for inflation, Minnesota's electric rates fell 0.4% from 2024 to 2025, while rising 2.3% nationally. Minnesota's average electricity burden, the percentage of gross household income spent on energy costs, is 0.81 percent of household income, remaining flat over the past five years, and is under the 1.00 percent electricity burden that the average American faces.

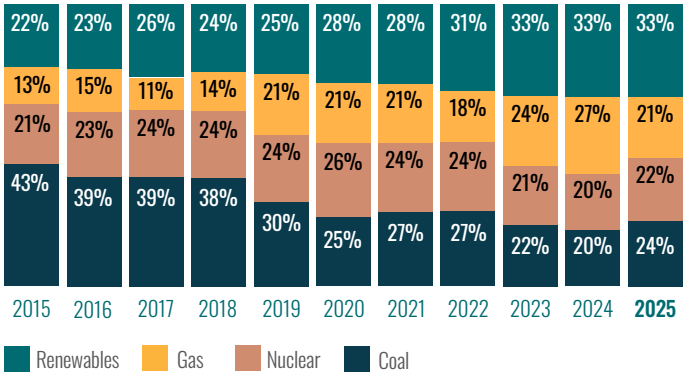
Figure 4: Minnesota average retail electricity prices relative to U.S. average



Source: Minnesota Department of Commerce, EIA

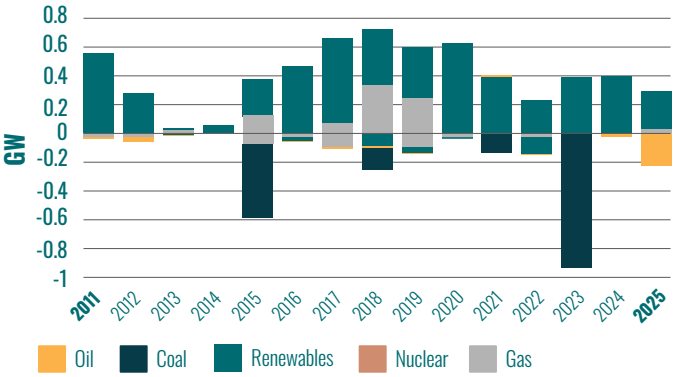
Renewables continue to lead Minnesota's electricity generation mix, with natural gas generation decreasing and coal-fired generation increasing over the past year (Figure 5). In the last ten years, renewables accounted for 84 percent of all new capacity, and in the past five years, renewables accounted for 98 percent of all new capacity, with all other additions being natural gas and oil plants. In 2025, preliminary data shows that renewables dominated Minnesota's 2025 power additions, with 264 MW of new solar generation compared to only 29 MW of new natural gas generation (Figure 6).

Figure 5: Minnesota electricity generation mix by technology



Source: BloombergNEF, EIA

Figure 6: Minnesota capacity build and retirements



Source: Minnesota Department of Commerce, EIA

In 2025, 20.66 TWh of electricity generated in Minnesota came from renewable sources; 14.14 TWh of electricity generated in Minnesota came from coal. All coal-fired power plants located in Minnesota plan to be retired by 2035, with 1.06 GW already retired over the last five years. For context, 2 GW of electricity can power roughly 1.5 million American homes. The state's 100% carbon-free electricity standard by 2040, supported by the Minnesota Climate Action Framework, encourages a sustained trajectory for this trend.

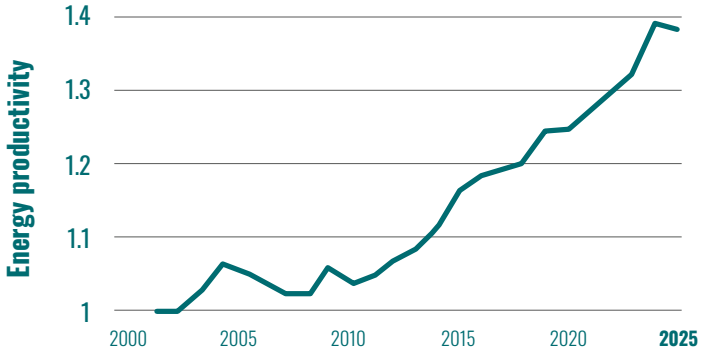
Sustainable Energy Deployment

Energy Efficiency

The American Council for an Energy-Efficient Economy's (ACEEE) 16th edition State Energy Efficiency Scorecard names Minnesota the highest-ranking state in the Midwest, placing it eleventh overall in the nation. Minnesota's natural gas savings percentage was the fourth-highest in the nation, and electric utilities achieved the seventh-highest energy savings rate nationally.

Minnesota has shown a consistent upward trend in energy productivity, which measures the economic benefit gained from each unit of energy used. The state has seen a 38 percent boost in energy productivity since 2001 and an 8 percent increase in the last five years (Figure 7). However, in 2025, Minnesota experienced a slight dip in energy productivity, dropping under a half percent from 2024 to 2025. By consistently updating policies and backing them with smart investment, Minnesota remains a leader in energy efficiency despite the minor decrease in 2025.

Figure 7: Minnesota energy productivity

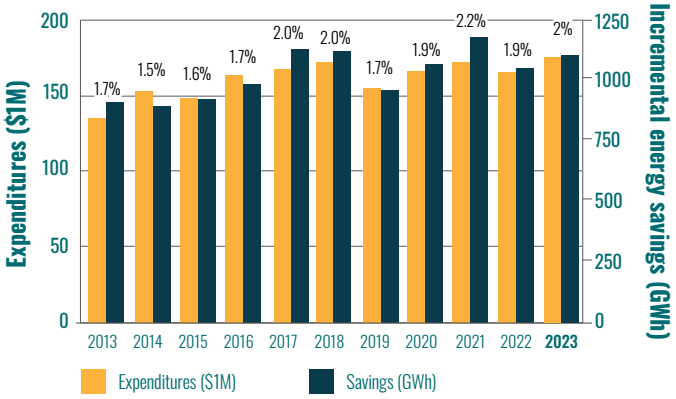


Source: BloombergNEF

The 2021 Energy Conservation and Optimization (ECO) Act, signed by Governor Tim Walz, serves to modernize and expand Minnesota's Conservation Improvement Program (CIP). ECO is a utility-administered program with regulatory oversight provided by the Minnesota Department of Commerce. Utility ECO portfolios promote energy-efficient technologies and practices by offering utility customers rebates, as well as marketing and technical assistance.

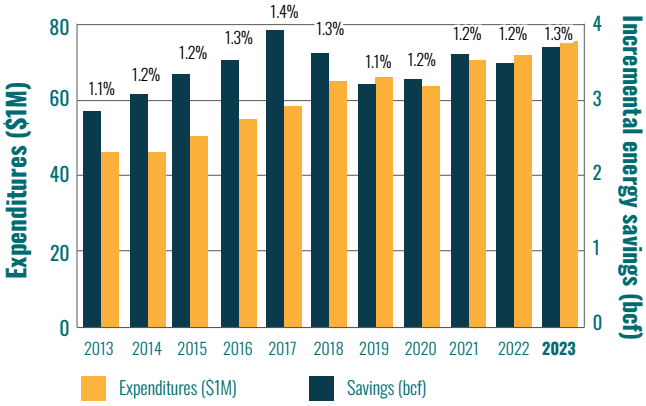
ECO programs help Minnesota households and businesses lower energy costs by using electricity and natural gas more efficiently. According to the Minnesota Department of Commerce's most recent ECO report to the legislature, electric and natural gas savings for 2022 and 2023 totaled 2,144 GWh and 7.22 billion cubic feet, respectively (Figure 8 and Figure 9). This is enough energy to heat, cool, and power more than 147,000 homes for a year.

Figure 8: ECO program electric utility energy results



Source: Minnesota Department of Commerce

Figure 9: ECO natural gas utilities results



Source: Minnesota Department of Commerce

Hydrogen and Sustainable Aviation Fuel (SAF)

Federal policy changes have caused the national hydrogen sector to enter a phase of increased uncertainty. Although the federal government's final Section 45V tax credit guidance, released in January 2025, established a tiered tax credit for clean hydrogen up to $3 per kilogram, the One Big Beautiful Bill Act (OBBBA), enacted in July 2025, accelerated the construction deadline to December 31, 2027, instead of the original 2033. Following a period where annual supply announcements consistently exceeded 3 million metric tons (Mt), last year saw a sharp decline to just 0.31 Mt of new planned capacity nationally. This trend was most evident in hardware commitments. After developers announced over 34 GW of electrolyzer capacity between 2020 and 2024, virtually no new capacity was announced in 2025, and the immediate focus has shifted from speculative growth to managing the persistent cost gap. As of publication, green hydrogen production in the United States continues to cost significantly more than blue hydrogen (produced from natural gas with carbon capture) keeping large-scale final investment decisions under pressure.

While the hydrogen sector remains uncertain, SAF continues its emergence as a high-potential growth engine for Minnesota. This local momentum is mirrored by a 111 percent year-over-year increase in national production for 2025, underscored by a 356 percent rise in domestic output through the third quarter. However, the federal policy environment has shifted under OBBBA. Modification of the 45Z Clean Fuel Production Credit reduced the maximum incentive value to $1.00 per gallon and eliminated the $0.75 SAF bonus after 2025. While these tightened eligibility requirements and lower credit values have tempered domestic investment, export opportunities remain supported by European Union SAF mandates.

Minnesota is uniquely positioned to capitalize on this market opportunity through the GREATER MSP Partnership. This coalition, anchored by industry leaders like Delta and Airbus, is developing the integrated supply chain necessary to scale production, including for the Minneapolis–Saint Paul International Airport. By leveraging a sophisticated blend of agricultural feedstocks and advanced refinery infrastructure, the Minnesota SAF Hub, established in 2023, is preparing to operationalize high-volume output. This emerging ecosystem not only supports regional decarbonization but positions the state to capture a significant share of the 2.3-billion-gallon annual increase in jet fuel demand that the Energy Information Administration projects over the next decade.

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The state took decisive efforts toward this vision in 2025. In April 2025, the Minnesota Pollution Control Agency awarded $75,000 to the University of Minnesota to support a study aimed at planting one million acres of camelina, a winter cover crop, across the region. This research effort provides critical support for major industrial advancements, including DG Fuels' proposed $5 billion production facility in Moorhead, which remains on track to begin operations in 2030.

Looking ahead, the Minnesota SAF Hub is exploring innovative pathways to exceed 100 million gallons of annual production by 2035. By optimizing existing fuel routes, integrating new feedstocks like camelina, and advancing emerging power-to-liquid technologies, Minnesota is securing its status as a leader in the nation's transition to low-carbon flight.

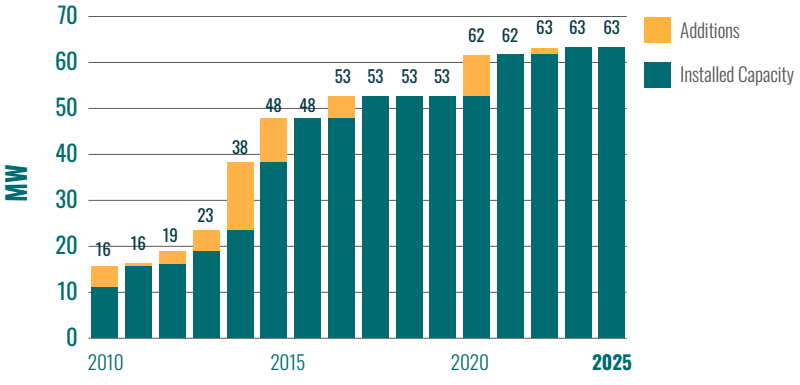
Data Centers

The nation's data center sector experienced unprecedented growth in 2025, with demand increasing 150 percent over the last five years and 400 percent over the past decade. By the conclusion of 2025, the United States reached a cumulative 23 GW of live capacity, with an additional 48 GW under-construction or committed. When including early-stage announcements, that number becomes 236 GW of potential data center capacity. The potential of rapid scaling has placed significant pressure on national grid constraints and electricity costs, prompting a shift toward more rigorous regional oversight, including in Minnesota.

In June 2025, the Minnesota Legislature established a comprehensive framework to support data center growth while protecting customers and communities. The law enhances the state's competitiveness by extending the sales tax exemption for qualifying equipment investments, while repealing the electricity sales tax exemption to ensure ongoing operational costs contribute to state revenues. It also introduces a tiered annual fee, up to $5 million for large-scale facilities, to fund statewide weatherization and conservation programs. To protect ratepayers, the framework ensures data centers pay their fair share for grid infrastructure through new utility tariffs and a distinct "very large customer" class, preventing costs from being shifted to other customers. Additional provisions include alignment with Minnesota's 100% carbon-free by 2040 electricity standard, strong environmental and water stewardship expectations, prevailing wage standards, and streamlined permitting processes to support timely project development.

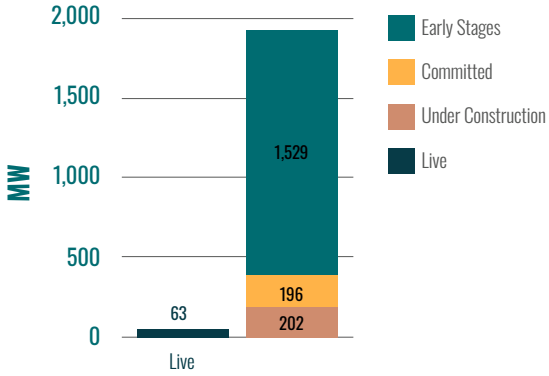
The combination of regulatory certainty and forward-thinking policy has Minnesota poised to attract data center investment. Minnesota closed 2025 with 63 MW of live data center capacity, up 31 percent from its 48 MW footprint in 2016 (Figure 10). Notably, the state has another 202 MW currently under construction as of the end of 2025 (Figure 11). One notable 2025 project includes Meta's $800 million AI-focused campus in Rosemount with Minnesota businesses contributing to its planning, construction, and maintenance. Minnesota continues to evaluate pathways forward for responsible data center investment.

Figure 10: Installed data center IT capacity in Minnesota



Source: Minnesota Department of Commerce

Figure 11: Minnesota data center development pipeline (MW of IT capacity)



Source: BloombergNEF, DC Byte

Renewables

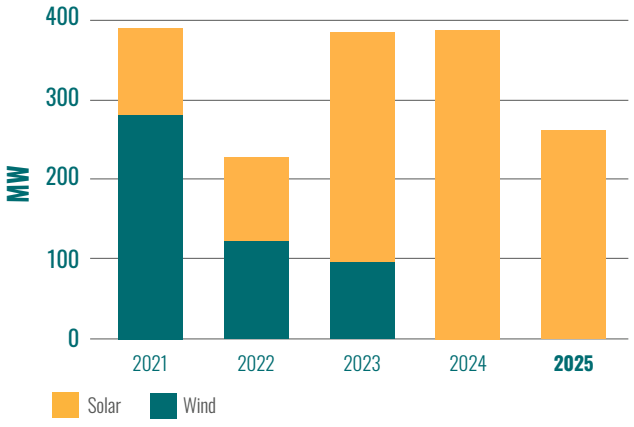
Minnesota's 100% carbon-free by 2040 electricity standard continues to drive renewable electricity investment across Minnesota. The landmark legislation provides targets for electric utilities, including investor-owned, municipal, and rural electric cooperatives, to transition away from carbon-producing sources and toward clean energy, such as wind and solar.

Xcel Energy began the retirement of its more than 2 GW Sherco coal plant in Becker in December 2023. The company has retired one of three coal units and remains on track to retire Sherco's remaining units in 2026 and 2030, marking its complete exit from coal. By early 2025, Xcel successfully placed the first two phases of the Sherco Solar project into service, while the third phase is currently under construction and scheduled to begin producing electricity in 2026. In October 2025, Xcel asked the Minnesota Public Utilities Commission for approval to double its original battery capacity while adding a 200 MW fourth phase of solar as well as deploying 136 MW of battery storage at a separate site southwest of Minneapolis. Xcel estimates the Sherco Solar project expansion will add $90 million in local economic benefits.

In addition, communities across Minnesota are making progress toward the 100% carbon-free by 2040 electricity standard. For example, the Solar on Public Buildings grant program, administered through the Minnesota Department of Commerce, awarded $1.23 million in grants to 17 local governments to install solar arrays on 23 buildings in March 2025. This investment is estimated to save $2.54 million in energy costs over the next 25 years.

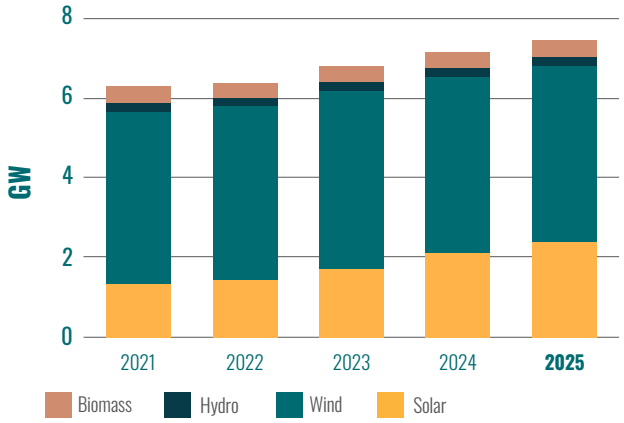
Over the last decade, Minnesota added primarily renewable energy to its generation mix, adding 4.1 GW. These additions included 2.4 GW of solar and 1.7 GW of wind. In the past five years, 1.7 GW of new renewable capacity was added, including 1.1 GW of solar and 508 MW of wind (Figure 12). In 2025, preliminary Minnesota Department of Commerce data shows that Minnesota added 264 MW of solar, which amounts to a 32 percent decrease year-over-year from 2024. Preliminary data show no other renewable capacity additions or retirements in 2025 (Figure 12). The overall growth trend would lead Minnesota's total installed renewable capacity to rise to 7.4 GW in 2025 (Figure 13). Wind accounts for nearly 60 percent of total renewable capacity, while solar is responsible for 32 percent. Final totals from the Minnesota Department of Commerce will likely be available by the end of 2026. Between forward-thinking policies, public and private financing, and increasing energy demand, Minnesota continues to expand renewable capacity.

Figure 12: Minnesota wind and solar capacity additions



Source: Minnesota Department of Commerce

Figure 13: Minnesota cumulative renewable capacity



Source: Minnesota Department of Commerce

Electric Vehicles

Thousands of Minnesotans chose electric vehicles (EVs) for their transportation needs in 2025. As of January 1, 2026, the state had registered approximately 96,340 EVs, equivalent to 15.28 EVs per 1,000 people. Nationally, passenger EV sales, including battery electric vehicles (BEVs) and plug-in hybrid electric vehicles (PHEVs), grew 3.7 percent year-over-year, reaching the new record of 1.6 million vehicles sold in 2025. The local surge and national trend reflects consumers' choice to purchase EVs ahead of the October 2025 phaseout of federal tax credits.

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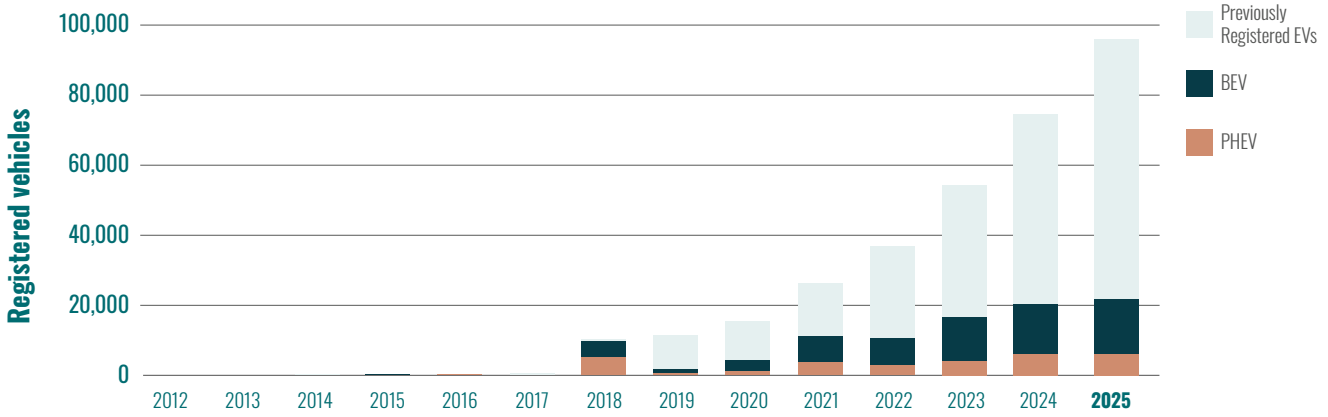
Annual EV registrations hit record-breaking highs in 2025, building on the steady progress seen in 2024. There were 15,824 new BEV registrations in 2025, a 7.2 percent increase from 2024, which saw 14,755 registrations (Figure 14). Similarly, new PHEV registrations increased 3.0 percent to 5,884 in 2025 from 5,711 in 2024. Minnesotans are registering EVs at a rate vastly higher than just a decade ago, with less than 100 BEV and PHEV registrations in 2016.

Figure 14: Minnesota annual electric vehicle registrations



Source: Minnesota Department of Transportation and Atlas Public Policy Note: PHEV is plug-in hybrid electric vehicles, BEV is battery electric vehicles.

The Minnesota Electric Vehicle Rebate Program, passed by the 2023 Minnesota Legislature and launched in February 2024, offered rebates of up to $2,500 for new EVs and $600 for used EVs on a first-come, first-served basis. Administered by the Minnesota Department of Commerce, this program was quickly exhausted, with Minnesotans receiving $15.716 million in first-time rebates for purchasing electric vehicles. Through this initiative, Minnesota became the second Midwestern state, after Illinois, to introduce an EV Rebate Program.

In 2025, the Minnesota Legislature passed a law that increases the EV fee based on each vehicle's MSRP and age. Beginning in January 2026, drivers can expect to pay at least $150 annually, and starting in 2027, expect to have a tax included at public charging stations. While these programs have yet to reach consumers, this new legislation may impact purchasing decisions.

The 2026 Minnesota Energy Factsheet is a project of CEEM and BCSE, with data contributions from BloombergNEF and the Minnesota Department of Commerce. We extend our thanks for the support and generous contributions of this year's sponsors: Marsh McLennan Agency, Full Stack Saint Paul and the McKnight Foundation.

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Geronimo Power's Louise Solar Project in Mower County is expected to offset approximately 1.3 million metric tons of carbon dioxide emissions over its lifespan.

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