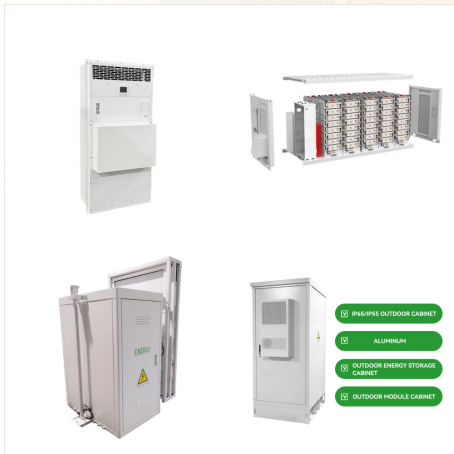




In early 2023, Minnesota invited a wave of investment in innovative energy solutions when lawmakers passed one of the most ambitious clean energy laws in the U.S., committing to 100% clean



Advancements in hydrogen energy: Electrolyzer shipments, including from Minnesota-based Cummins, saw a rise in 2023, bolstered by incentives from the federal Inflation Reduction Act (IRA). Growth in renewable energy capacity: Over the past five years, Minnesota added 2.2 GW of renewable energy capacity while reducing coal dependency by 1.2 GW.



??? Minnesota has an abundant supply of wind, solar, and bio-based energy. Renewable resources continue to make up an increasing share of the state's energy supply. In 2018, 16% of the total energy consumed in Minnesota for heating, industrial processes, transportation, and electricity generation came from renewable sources, compared with a United States average of 11% ???

RENEWABLE ENERGY IN MINNESOTA



Renewable sources, including wind, solar, hydropower, and biomass, generated the largest share of Minnesota's electricity in 2021, accounting for 29% of total in-state electricity net generation. Renewable generation, mostly from wind energy, has almost doubled over the past decade.



Renewable energy provided 28% of Minnesota's electricity in 2021, according to the 2022 Minnesota Energy Factsheet released last year by Clean Energy and the Business Council for Sustainable



Renewable energy credits (RECs) and solar renewable energy credits (SRECs) show the "value" of the environmental benefits linked to eligible renewable energy production. Each REC equals one MW-hour (1,000 kW hours) of energy, and owners can sell or trade them. To measure the RECs or SRECs produced by a DER system, a production meter is needed.

RENEWABLE ENERGY IN MINNESOTA



Renewable Energy. In 2015, over 21% of electricity generated in Minnesota came from renewable energy sources. Minnesota is on track to meet its renewable electricity standard for over 25% renewable electricity by 2025. ???

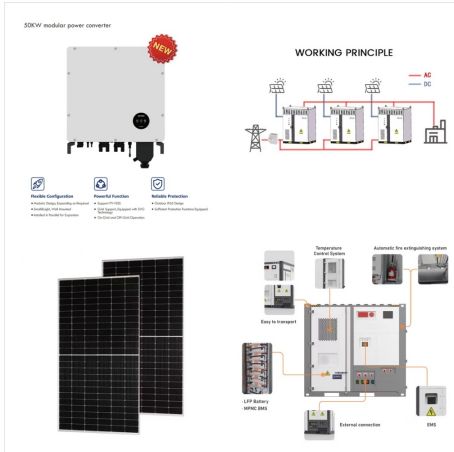


Those are two of the main findings from the 2024 Minnesota Energy Factsheet released Tuesday by Clean Energy Economy Minnesota and the Business renewable energy and natural gas sectors ??? has



In 2001, the Minnesota Legislature first enacted the Minnesota Renewable Energy Objective contained in Minnesota Statute section 216B.1691. As originally enacted, the Minnesota Renewable Energy Objective Statute required electric utilities to "make a good faith effort" to obtain 10 percent of their Minnesota retail

RENEWABLE ENERGY IN MINNESOTA



legislative sessions closed across the Midwest, renewable energy advocates in Minnesota and Michigan have reason to celebrate. With mere minutes to spare in the legislative session, the Minnesota legislature passed the Minnesota Energy Infrastructure Permitting on Sunday, May 19. The legislation is a robust package of reforms that



Renewable Energy Capacity: Minnesota: Share of U.S. Period: find more: Total Renewable Energy Electricity Net Summer Capacity 6,754 MW 1.9% Jul-24 Ethanol Plant Nameplate Capacity 1,443 million gal/year 8.0% 2024 Renewable Energy Production: Minnesota: Share of U.S.



On the Road to 100 Percent Renewables for Minnesota Strengthening the State's Energy Transition KEY FACTS Less fossil fuel generation = better health More than \$1.2 billion in public health savings by 2040 More renewable energy = more jobs and other economic benefits Almost \$5 billion in net labor income by 2040 We must act now to avert the worst of climate change

RENEWABLE ENERGY IN MINNESOTA



Minnesota's mandatory renewable energy standard, initially enacted in 2007, requires that the state's electricity providers generate or procure at least 25% of their electricity retail sales from eligible renewable sources by 2025. In 2023, Minnesota's legislature raised the standard, requiring utilities to obtain 80% carbon-free electricity by



Minnesota Renewable Energy Update, November 2018 6 . According to data from the U.S. Energy Information Administration (EIA), a shift to cleaner energy sources has continued at a steady pace in Minnesota. For instance, wind energy generated just 4.8 percent of the state's electricity in 2007 and jumped to 18.2 percent in 2017,



Backers called the bill the most significant action on climate change in Minnesota since 2007, when the Legislature passed renewable energy standards requiring that most utilities get 25 percent

RENEWABLE ENERGY IN MINNESOTA



Energy Transition at IonE. Through our Energy Transition initiative, IonE aims to help shape Minnesota's energy system into a global model for a carbon-neutral economy that is at once prosperous and equitable, advances innovation, and improves both the environment and people's lives.. We believe that it is critical to prioritize and catalyze efforts that will advance the ???



The National Renewable Energy Laboratory's Wind Prospector tool is a web-based Geographical Information System that supports resource assessment and data exploration for wind development. Clean Energy Economy Minnesota ???



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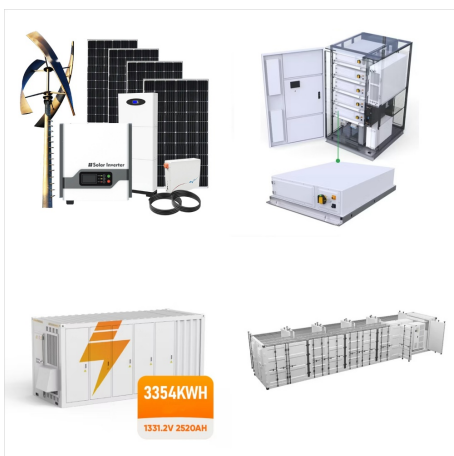
RENEWABLE ENERGY IN MINNESOTA



In 2018, renewable energy fueled about 25% of the electricity generated in Minnesota, with solar energy generating 2.2% and wind representing about 18%. Solar jobs more than doubled in the last four years in Minnesota, from 1,995 in 2015 to 4,602 in 2018. Minnesota solar jobs increased 8% in 2018, even as solar jobs nationwide declined 3.2%.



During the 2023 Session, the Minnesota Legislature passed bills that created and funded the Minnesota Climate Innovation Finance Authority (MnCIFA). The mission of MnCIFA, a publicly-accountable financing authority commonly known in other states as a "green bank," will be to accelerate the adoption of proven clean energy technology and greenhouse gas reduction ???

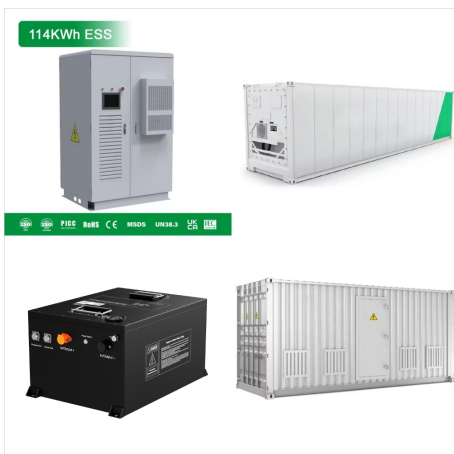


Our key energy actions that contribute to reducing climate change are making progress. Carbon-free electricity and household energy use are both metrics that have improved due to investments in more energy efficient heating systems and the capacity for more renewable energy generation ??? with 2.6 % of our energy coming from wind.

RENEWABLE ENERGY IN MINNESOTA



In February, Minnesota passed a 100 percent carbon-free energy by 2040 law that also streamlines permitting for renewable energy projects, defines what qualifies as renewable energy and ensures



The Department of Commerce administers programs to help Minnesotans save money and save energy, get assistance paying their utility bills and transition to renewable energy. Take Action New Energy Programs