STATE OF MINNESOTA
Legislative Budget Office

Wind Energy Conversion Systems
Tax Expenditure Evaluation Summary

Objective

The objective of the Wind Energy Conversion Systems General Sales and Use Tax Exemption is to incentivize and promote the implementation and utilization of wind energy systems in Minnesota. The exemption is meant to achieve a greater percentage of renewable energy contributions to the state's electricity fuel generation mix.

Background

Wind energy conversion systems and the materials used to manufacture, install, construct, repair, or replace them are exempt from the sales and use tax if the systems are used as an electric power source. Wind energy conversion systems include any device which converts wind energy to a form of usable energy, such as a wind charger, windmill, or wind turbine. In order to receive the exemption, a purchaser is required to provide a completed Form ST3, Certificate of Exemption, made available by the Department of Revenue, and provide it to the seller as part of the transaction.

Summary Information

Year Enacted	1992
Statute	Minnesota Statutes, Section 297A.68, Subdivision 12
Tax Type	Sales and Use Tax
Provision Type	Exemption – Particular Goods and Services
Latest Fiscal Impact Estimate	$12,000,000 – Fiscal Year 2026
Latest Claims Estimate	Direct measure of this estimate not available
Expiration Date	None

Key Findings

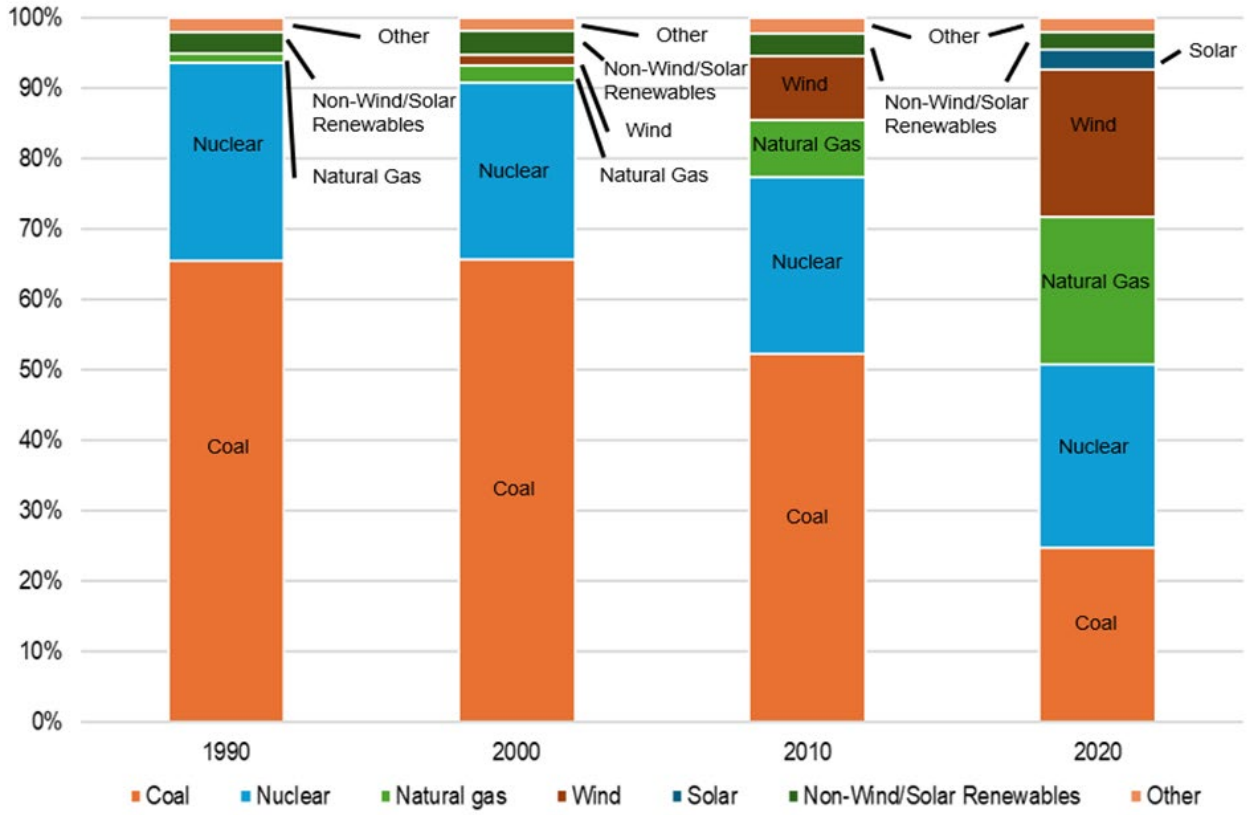
- The Wind Energy Conversion System Exemption is generally effective at addressing its stated objective of incentivizing and promoting the implementation and utilization of wind energy systems in Minnesota when considering it as part of a larger policy initiative; however, it is not feasible to measure the effectiveness of the exemption on its own.

Potential Modifications

- No potential modifications to increase efficiency or effectiveness were identified.
- It is difficult to empirically assess the measurable impacts of one specific piece of renewable energy policy. Multiple state, federal, and private programs incentivize the utilization of wind energy conversion systems. We assume that these policies overlap to encourage the uptake of renewable energy.

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Figure 1. Minnesota Electricity Fuel Generation Mix, 1990 – 2020 (percent of total MWh)



Data Source: U.S. Energy Information Administration, Form EIA-923, Power Plan Operations Report and predecessor forms

Wind energy has experienced sizeable growth since 1990, rising from zero percent of the total electricity fuel generation mix in 1990 to 21 percent in 2020.

Additional Considerations

- The cost to produce renewable energy has changed dramatically within the past decade. The global weighted average levelized cost of wind was 85 percent higher than the cheapest fossil fuel in 2010. By 2022, this metric dropped to be 52 percent lower than the cheapest fossil fuel.
- There are significant data limitations that inhibit the ability of the LBO to conduct a comparative analysis at the level required to estimate the measurable impacts of a single tax expenditure designed to encourage uptake in renewable energy.

Contact Information and Disclaimer

This tax expenditure evaluation was prepared by the Legislative Budget Office for the Tax Expenditure Review Commission.

For more information, please visit the TERC website. For the full report visit the TERC report page.

Contact the Legislative Budget Office at 651-297-7146 or lbo@lbo.mn.gov with questions.