

Reforming Minnesota's 3x5 Wind Access Buffer

Practical setback reforms for siting wind projects responsibly will help Minnesota use our ample wind resources to keep energy affordable and meet the state's environmental goals.

Key Takeaways

- 1 Maximize Land Efficiency:** Setback reform allows Minnesota to responsibly site more wind turbines on available land, harnessing our energy potential without compromising safety or aesthetics.
- 2 Drive Local Prosperity:** Practical setback policies enable higher project capacity, delivering increased production tax revenue directly to county and township governments, creating family-supporting jobs, and attracting investment to rural Minnesota communities.
- 3 Reduce Infrastructure Costs:** Updating siting practices would reduce infrastructure costs via shorter access roads, shorter collection wires between turbines, and less disruption to underground farm drainage systems.

Background

Wind energy plays a vital role in our state's transition toward clean and reliable electric generation. However, the state's current setback practices—established over 15 years ago for smaller turbines—have become outdated and fail to accommodate projects at the scale and pace needed to meet Minnesota's clean energy goals. Minnesota can modernize these standards to match technological innovation, as neighboring states have already done.



Current Setback Policy: The 3x5 Wind Access Buffer

Minnesota currently uses an outdated formula for determining how far wind turbines must be placed from non-participating property lines.

Collectively referred to as the 3x5 Wind Access Buffer (WAB), *Public Utilities Commission (PUC) Docket M-07-1102* establishes a 5 rotor-diameter setback in the prevailing wind direction and a 3 rotor-diameter setback in the non-prevailing wind direction.

Given technological improvements, growing turbine size, and demand for Minnesotan clean energy, this policy significantly limits where turbines can be placed (as shown in the maps on page 2). It has become outdated and is due for revision.

Neighboring States Have Already Modernized

States like Illinois, Michigan, North Dakota and South Dakota have adopted more practical standards based on turbine height using a 1.1 Blade Tip Height Multiplier.

- This means the setback distance is determined by measuring the turbine's maximum blade tip height and multiplying it by 1.1.

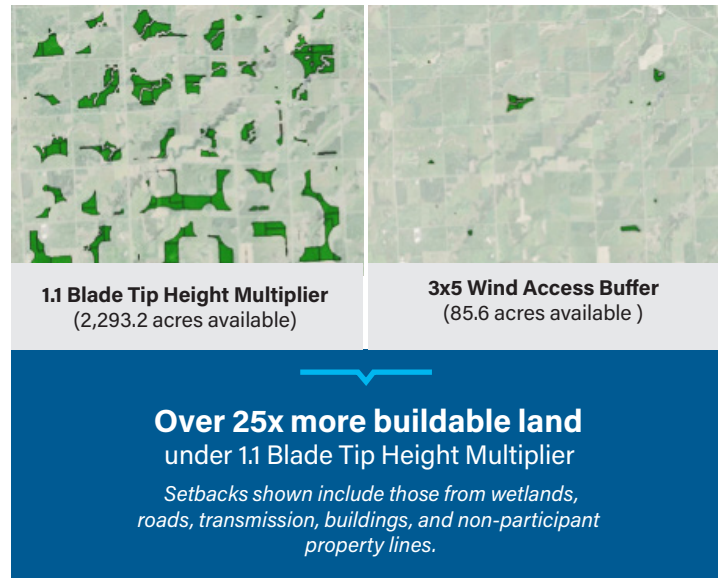
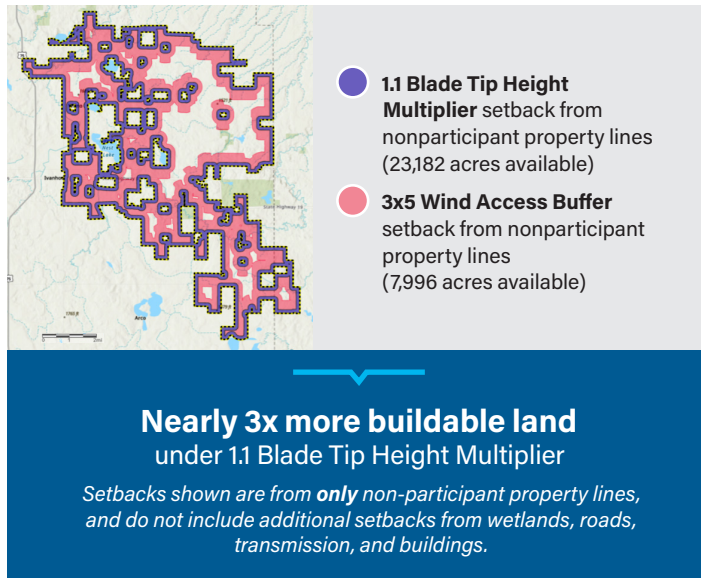
Numbers Tell the Story: Dramatic Reduction in Usable Acreage

As demonstrated in the maps below, Minnesota's 3x5 Wind Access Buffer significantly reduces the land available for wind turbine placement within project footprints, forcing sub-optimal siting of turbines—sometimes in the middle of parcels, rather than near existing infrastructure such as roads.

Given Minnesota's robust clean energy goals, including the 100% carbon-free electricity by 2040 standard, the state must set itself up to use land efficiently to protect ratepayers and landowners.



Buildable Area (Real-World Examples)



Current Policy Hurts Minnesota Communities & Ratepayers

The outdated 3x5 Wind Access Buffer creates several practical challenges:

- **Increases Infrastructure Costs:** Projects require more access roads, longer collection wires between turbines, and greater disruption to underground farm drainage systems (drain tiles), driving up development expenses that ultimately impact electricity prices for Minnesota families and businesses.
- **Forces Sub-Optimal Placement:** Current standards often push turbines into the center of parcels rather than alongside existing infrastructure, creating unnecessary visual impacts and disrupting other land uses.

Updating to the 1.1 Blade Tip Height standard would address these challenges decrease visual impacts, allow for optimal siting of turbines within a parcel, and enhance opportunities for wind development in Minnesota, all while maintaining appropriate safety measures, as proven in neighboring states.



Support updating Minnesota's setback standards to the proven 1.1 Blade Tip Height multiplier already working successfully in neighboring states.

