

WisDOT's Solutions for Overcoming Barriers to Siting Transmission in Highway ROW

Siting transmission infrastructure in the highway rights-of-way (ROW) is rare. Some states prohibit the practice in state law or regulations. However, the State of Wisconsin and the Wisconsin Department of Transportation (WisDOT), following a change in state law intended to encourage co-location, collaborated to overcome barriers to the practice. The experience of WisDOT provides a 'playbook' for other states and agencies exploring ways to advance similar infrastructure initiatives.

Barriers and Solutions to Siting Transmission in Highway ROW

FEDERAL REGULATIONS

Barriers:

- Federal regulations prohibited longitudinal utility installations from 1959 until 1989 when Federal policy was relaxed to allow for longitudinal utility installations under 'strictly controlled conditions'
- Although Federal regulations now allow for longitudinal siting of utilities in the highway ROW, many states have not changed their laws and regulations prohibiting the practice

WisDOT Solutions:

- In 2003 Wisconsin passed Act 89, which established highway and railway corridors as the second priority corridors (after existing transmission corridors) for new transmission development¹

¹ <https://docs.legis.wisconsin.gov/2003/related/acts/89>

SAFETY

Barriers:

- Overhead transmission can pose safety risks to the traveling public. Transmission towers represent potential collision hazards, as would transmission lines if they were to fall onto a travel lane
- Overhead Alternating Current (AC) transmission can inductively couple to nearby metallic infrastructure and produce mild to moderate electrical shocks from metallic infrastructure that has not been properly grounded

WisDOT Solutions:

- WisDOT ensures that transmission towers are placed outside of the highway's 'clear zone' where possible
- Where not possible, protective barriers (e.g., guardrails) are installed to address hazards resulting from collisions

HIGHWAY MAINTENANCE AND EXPANSION

Barriers:

- Placing utility infrastructure in the highway ROW has the potential to impact highway maintenance and expansion needs

WisDOT Solutions:

- WisDOT reviews its future highway expansion and maintenance plans and works with the transmission developer to place towers in locations that will have the least possible impact to future highway expansion and maintenance

TRANSMISSION CONSTRUCTION AND MAINTENANCE

Barriers:

- The process of constructing and maintaining transmission (and other utilities) could impede traffic flow or jeopardize the safety of the traveling public

WisDOT Solutions:

- WisDOT requires the transmission developer to develop a 'Constructability Report' that details how traffic impacts will be addressed during the transmission construction and maintenance process

UTILITY RELOCATION COSTS

Barriers:

- Utility relocation costs – the cost of moving utility infrastructure to accommodate highway expansion or maintenance – can be a barrier if the state Department of Transportation (DOT) bears those costs

WisDOT Solutions:

- The utility is responsible for paying relocation costs in Wisconsin

VIEWSHED IMPACTS

Barriers:

- Siting transmission along highways can negatively impact the viewshed for the traveling public
- The federal highway system includes a national scenic byways program

WisDOT Solutions:

- Transmission is sited to minimize viewshed impact in scenic areas

ENVIRONMENTAL IMPACTS

Barriers:

- Where environmental impacts would occur, the DOT may require funding to mitigate those impacts (e.g., the replacement of a living snow fence)

WisDOT Solutions:

- Vegetation fees were assessed by the DOT to mitigate environmental impacts incurred through the co-location of transmission lines in highway ROW

Wisconsin Resources

To learn more about Wisconsin's policies related to ROW transmission, visit the following resources:

- [2003 Wisconsin Act 89](#)
- [Utility Accommodation Policy \(UAP\)](#)

- [Cooperative Agreement Between WisDOT and PSCW for New Electric Transmission Lines](#)
- [Example: Badger Coulee Transmission Line - Utility Constructability Report](#)
- [Example: Badger Coulee Transmission Line - Final Environmental Impact Statement](#)
- [Example: Permit for Utility to Construct, Operate, and Maintain Utility Facilities on Highway ROW](#)

About NextGen Highways

The NextGen Highways is a collaborative initiative promoting the use of highways and other existing rights-of-way as infrastructure corridors where electric and communications infrastructure are strategically and safely co-located in existing highway right-of-way. Learn more at <http://www.NextGenHighways.org>