



# JERRY PETROWSKI

WISCONSIN STATE SENATOR

## *Senate Bill 881*

February 8, 2022

Good afternoon, members of the committee, and thank you for the opportunity to speak today on Senate Bill 881.

As you may know, DOT currently installs “emergency preemption devices” on traffic signals when requested by municipalities. This technology allows authorized emergency vehicles to transmit a signal to the traffic lights to change the normal light sequence and either extend a green light or change a red light to green. This allows emergency vehicles to quickly and safely proceed through intersections without getting stuck at red lights.

This bill allows similar but different technology to be used for snowplows. Like signal preemption, Signal Priority uses vehicle location and wireless communication technologies in combination with traffic signal controller logic to request a green light be provided or maintained to allow the vehicle time to travel through the intersection. This bill proposes to allow snowplows to use Signal Priority so they may request extra green time to proceed through the intersection to improve efficiencies during winter maintenance operations and provide safe travel to the motoring public. The difference between signal preemption and Signal Priority is that Signal Priority does not guarantee the vehicle will get extra green time; green time is only extended if traffic conditions are appropriate.

Under current statute, Signal Priority is included in the definition of “emergency preemption device,” thereby restricting its use only to authorized emergency vehicles. We believe that extending Signal Priority (but not preemption) to snowplows would enhance traffic flow and maintenance operations. For example, less snow may be left behind at intersections where the plow does not need to stop and interrupt their momentum. In addition, one study in St. Cloud, Minnesota, found that travel times for snowplows were improved 22 percent using this technology.

Thank you again for the opportunity to speak on this bill. I would be happy to answer any questions you may have.

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# PATRICK SNYDER

STATE REPRESENTATIVE • 85<sup>th</sup> ASSEMBLY DISTRICT

## Testimony in Support of Senate Bill 881

Senate Committee on Transportation and Local Government  
February 8<sup>th</sup>, 2022

Vice-Chairman Cowles and members of the Committee:

Thank you for taking the time to allow me to testify on Senate Bill 881.

This bill allows the use signal priority devices on traffic signals for snowplows. Currently, emergency preemption devices are placed on some traffic signals allowing authorized emergency vehicles to transmit a signal to traffic lights to change the normal light sequence and either extend a green light or change a red light to green. This allows emergency vehicles to quickly and safely proceed through intersections without getting stuck at red lights. Signal priority is a similar technology that allows snowplows to request a green light be provided or maintained to allow the vehicle time to travel through the intersection by requesting extra green time to proceed through the intersection to improve efficiencies during winter maintenance operations and provide safe travel to the motoring public.

Current statutes classify signal priority under emergency preemption devices and therefore limit their use to emergency vehicles. However, given that snowplows require different prioritization than emergency vehicles we think that creating a new level of priority for them would help increase traffic flow and snowplowing efficiency. This technology is already in use in Illinois and Utah and a study in Minnesota found increased efficiency associated with signal priority for snowplows.

Thank you for taking the time to hear my testimony today. I am happy to answer any questions you may have.



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**Testimony of Joel Nilsestuen, Assistant Deputy Secretary  
Senate Committee on Transportation and Local Government  
Public Hearing - February 8, 2022**

Thank you, Chairman Petrowski and committee members for the opportunity to testify in support of Senate Bill 881 on behalf of the Wisconsin Department of Transportation.

Today, I am joined by David Karnes who is the Traffic Systems Supervisor for WisDOT. David has 17 years of experience in traffic engineering and has been with WisDOT for 10 years where he oversees traffic signal and electrical systems policy and standards for the department. He is a registered professional engineer in the state of Wisconsin. David will be providing comments from his expertise in support of this legislation.

Signal priority is a proven technology that allows equipped vehicles to request or extend a green light at some signalized intersections. Current law allows emergency vehicles to use similar equipment to preempt the traffic signal sequence to provide or extend a green light as they approach an intersection. Preemption is different from priority in that it immediately changes the timing sequence to provide a green light for the direction of the approaching vehicle. The department also uses preemption at signalized intersections near railroad crossings and lift bridges to clear the queue of vehicles that may be in conflict with the train or bridge and then to prevent other vehicles from entering the approach with the tracks or bridge. It is an important safety feature at our signalized intersections.

Signal priority has been shown to improve traffic flow on corridors equipped with this technology. One application is for snowplows that are actively engaged in snow removal or anti-icing to receive additional green time or request a green earlier so they can proceed safely and efficiently through the signalized intersection. In our traffic signal controllers, signal priority receives a lower priority for service than a preemption request. Therefore, a vehicle requesting priority would not receive the green if a vehicle with preemption was approaching from a different direction.

Equipping snowplows and traffic signals with signal priority can lead to more efficient removal of snow, quicker travel times on the snowplow route, and reduced usage of salt. Thank you again for the opportunity to testify today. We would be happy to answer any questions you might have.