

2013 DRAFTING REQUEST

Bill

Received:	11/5/2012	Received By:	agary
Wanted:	As time permits	Same as LRB:	
For:	Fred Risser (608) 266-1627	By/Representing:	self
May Contact:		Drafter:	agary
Subject:	Transportation - motor vehicles Transportation - traffic laws	Addl. Drafters:	
		Extra Copies:	EVM

Submit via email: **YES**
 Requester's email: **Sen.Risser@legis.wisconsin.gov**
 Carbon copy (CC) to: **aaron.gary@legis.wisconsin.gov**

Pre Topic:

No specific pre topic given

Topic:

Autonomous vehicles

Instructions:

See attached

Drafting History:

<u>Vers.</u>	<u>Drafted</u>	<u>Reviewed</u>	<u>Typed</u>	<u>Proofed</u>	<u>Submitted</u>	<u>Jacketed</u>	<u>Required</u>
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/P1	agary 2/14/2013	evinz 11/26/2012	jfrantze 11/26/2012	_____	mbarman 11/26/2012		State
/1	agary 2/26/2013	rschluet 2/15/2013	rschluet 2/15/2013	_____	mbarman 2/15/2013	rose 2/15/2013	State

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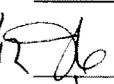
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1/2	agary	1/26/12	1/26/12				
				11/26			

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11/5/12

Sen. Ribser

- authorize ~~state~~ automobiles
to drive on highways w/ no driver

CA, NV, FL

- auto companies can use experimental
vehicles on highways

- bill from NCSL →

Gary, Aaron

From: Jurenci, Cassie
Sent: Tuesday, November 06, 2012 10:29 AM
To: Gary, Aaron
Subject: RE: Driverless car legislation

From what I've read, the other state's legislation provides for this. In Florida, for example, the person who causes the vehicle's autonomous technology to engage is considered the operator. I'll be sending it over today.

Thanks again,

Cassie Jurenci

Office of Senator Fred Risser
President, Wisconsin State Senate
220 South, State Capitol
E-mail: cassie.jurenci@legis.wi.gov
Office: 608.266.1627

From: Gary, Aaron
Sent: Tuesday, November 06, 2012 10:18 AM
To: Jurenci, Cassie
Subject: RE: Driverless car legislation

Probably the legislation from Cal, Nev, and FL will cover this issue, but I do have one basic question at the outset. Citations for motor vehicle violations are issued to the operator. If the vehicle has no operator, who will the citation be issued to – the person to whom the vehicle is registered?

Thanks.

Aaron R. Gary
Attorney, Legislative Reference Bureau
608.261.6926 (voice)
608.264.6948 (fax)
aaron.gary@legis.state.wi.us

From: Gary, Aaron
Sent: Tuesday, November 06, 2012 10:13 AM
To: Jurenci, Cassie
Subject: RE: Driverless car legislation

That should do it. If I have questions, I'll get back to you. FYI, the LRB number for the draft will be LRB-0498.
Thanks. Aaron

From: Jurenci, Cassie
Sent: Tuesday, November 06, 2012 9:08 AM
To: Gary, Aaron
Subject: Driverless car legislation

Hi Aaron,

Senator Risser told me that I should send you the legislation from California, Nevada and Florida that I have found concerning driverless cars.

This is my first time sending something over to LRB—is there anything else I should send along?

Thank you!

Cassie Jurenci

Office of Senator Fred Risser
President, Wisconsin State Senate
220 South, State Capitol
E-mail: cassie.jurenci@legis.wi.gov
Office: 608.266.1627

materials received from NCSL 6-16-12

State Legislation Concerning Autonomous Vehicles: 2011 and 2012

National Conference of State Legislatures (NCSL)

Updated Oct. 25, 2012

Jaime Rall, Senior Policy Specialist

jaime.rall@ncsl.org, 303-856-1417

2012 Legislation

State	Bill Number	Relevant Provisions	Status
Arizona	AZ HB 2679	Directs the Director of the Department of Motor Vehicles (DMV) to adopt rules authorizing the operation of autonomous vehicles on highways in the state, including minimum safety and insurance requirements. Restricts testing to certain areas and provides for autonomous vehicle drivers license endorsement.	Failed – session adjourned.
California	CA SB 1298	Requires the Department of the California Highway Patrol to adopt safety standards and performance requirements to ensure the safe operation and testing of autonomous vehicles, as defined, on the public roads in this state. Permits autonomous vehicles to be operated or tested on the public roads in this state pending the adoption of safety standards and performance requirements that would be adopted under this bill.	Enacted and chaptered on Sept. 25, 2012.
Florida	FL HB 1207	<p>AS INTRODUCED: Authorizes the operation of vehicles equipped with autonomous technology by employees or contractors of manufacturers of autonomous technology for the purpose of testing the technology. Also directs the Department of Highway Safety and Motor Vehicles to prepare a report relating to the safe operation of vehicles equipped with autonomous technology on public roads, to be submitted no later than Feb. 1, 2014.</p> <p>AS SUBSTITUTED: Authorizes a person who possesses a valid driver license to operate an autonomous vehicle, specifying that the person who causes the vehicle's autonomous technology to engage is the operator. Authorizes the operation of autonomous vehicles by certain persons for testing purposes under certain conditions and requires an instrument of insurance, surety bond, or self-insurance prior to the testing of a vehicle. Also directs the Department of Highway Safety and Motor Vehicles to prepare a report relating to the safe operation of vehicles equipped with autonomous technology on public roads, to be submitted no later than Feb. 1, 2014, and defines the term "autonomous technology."</p>	Enacted and chaptered on April 16, 2012.

State	Bill Number	Relevant Provisions	Status as of Oct. 25, 2012
Florida (cont.)	FL HB 599	AS AMENDED: Among other provisions, defines "autonomous vehicle," declares legislative intent to encourage the safe development, testing, and operation of motor vehicles with autonomous technology on the public roads of the state and finds that the state does not prohibit or specifically regulate the testing or operation of autonomous technology in motor vehicles on public roads. Allows for the operation of autonomous vehicles on roads in the state for testing purposes, however, the entity performing the testing must submit to the Department of Highway Safety and Motor Vehicles an instrument of insurance, surety bond, or proof of self-insurance acceptable to the department in the amount of \$5 million. Also, by February 12, 2014, the Department of Highway Safety and Motor Vehicles shall submit a report to the President of the Senate and the Speaker of the House of Representatives recommending additional legislative or regulatory action that may be required for the safe testing and operation of motor vehicles equipped with autonomous technology.	Enacted and chaptered on April 29, 2012.
	FL SB 1768	Directs the Department of Highway Safety and Motor Vehicles to prepare a report relating to the safe operation of vehicles equipped with autonomous technology on public roads, to be submitted no later than Feb. 1, 2014.	Substituted by HB 1207 on March 9, 2012.
Hawaii	HI HB 2238	Authorizes the issuance of a driver's license for operation of autonomous motor vehicles; requires the Department of Transportation to adopt rules for the operation of autonomous motor vehicles. AS AMENDED on March 1, 2012: No longer relates to autonomous vehicles.	N/A (no longer relevant to autonomous vehicles).
	HI HCR 212	Urges the Department of Transportation to review and report on policies relating to the use of driverless vehicles in Hawaii.	Failed – session adjourned.
	HI HR 163	Urges the Department of Transportation to review and report on policies relating to the use of driverless vehicles in Hawaii.	Failed – session adjourned.
New Jersey	NJ AB 2757	Defines "autonomous vehicle." Directs the New Jersey Motor Vehicle Commission to adopt rules for driver's license endorsement and requirements for operation of an autonomous vehicle, including insurance, safety standards, and testing.	Introduced on May 10, 2012; pending in committee.
Oklahoma	OK HB 3007	Directs the Department of Public Safety to establish an endorsement for the operation of autonomous vehicles on highways. Also directs department to adopt rules relating to autonomous vehicles, setting forth requirements for operating such a vehicle in the state, including safety and insurance requirements.	Failed – session adjourned.

2011 Legislation

State	Bill Number	Relevant Provisions	Final Status
Nevada	NV AB 511	Authorizes operation of autonomous vehicles and a driver's license endorsement for operators of autonomous vehicles. Defines "autonomous vehicle" and directs state Department of Vehicles (DMV) to adopt rules for license endorsement and for operation, including insurance, safety standards and testing.	Enacted and chaptered on June 17, 2011.
	NV SB 140	Prohibits the use of cell phones or other handheld wireless communications devices while driving in certain circumstances, and makes it a crime to text or read data on a cellular phone while driving. Permits use of such devices for persons in a legally operating autonomous vehicle; these persons are deemed not to be operating a motor vehicle for the purposes of this law.	Enacted and chaptered on June 17, 2011.

CA

Senate Bill No. 1298

CHAPTER 570

An act to add Division 16.6 (commencing with Section 38750) to the Vehicle Code, relating to vehicles.

[Approved by Governor September 25, 2012. Filed with Secretary of State September 25, 2012.]

LEGISLATIVE COUNSEL'S DIGEST

SB 1298, Padilla. Vehicles: autonomous vehicles: safety and performance requirements.

Existing law requires the Department of the California Highway Patrol to adopt rules and regulations that are designed to promote the safe operation of specific vehicles, including, among other things, schoolbuses and commercial motor vehicles. Existing law also requires the Department of Motor Vehicles to register vehicles that are being operated in this state and to issue a license plate to an applicant for the operation and identification of that person's vehicle.

This bill would authorize the operation of an autonomous vehicle, as defined, on public roads for testing purposes, by a driver who possesses the proper class of license for the type of vehicle being operated if specified requirements are met, including that the driver be seated in the driver's seat, monitoring the safe operation of the autonomous vehicle, and capable of taking over immediate manual control of the autonomous vehicle in the event of an autonomous technology failure or other emergency. The bill would prohibit, except as provided for testing purposes, the operation of such a vehicle on public roads until the manufacturer submits an application to the department that includes various certifications, including a certification that the autonomous technology satisfies certain requirements, and the application is approved by the department pursuant to the regulations that the department would be required to adopt. The bill would require one of the certifications to specify that the autonomous vehicle's technology meets Federal Motor Vehicle Safety Standards for the vehicle's model year and all other applicable safety standards and performance requirements set forth in state and federal law and the regulations promulgated pursuant to those laws.

The bill would require that the Department of Motor Vehicles adopt regulations as soon as practicable, but no later than January 1, 2015, setting forth requirements for the submission of evidence of insurance, surety bond, or self-insurance required by the bill and requirements for the submission or approval of an application to operate an autonomous vehicle, including any testing, equipment, or performance standards, as specified, and to hold public hearings on the adoption of any regulation applicable to the operation

of an autonomous vehicle without the presence of a driver inside the vehicle. The bill would provide that federal regulations promulgated by the National Highway Traffic Safety Administration supersede state law or regulation when found to be in conflict.

The bill would require the department to approve an application submitted by a manufacturer upon making specified findings and would authorize the department to impose additional requirements if the application seeks approval for autonomous vehicles where there is no person in the driver's seat. The bill would also require the department to notify the Legislature of the receipt of an application from a manufacturer seeking approval to operate an autonomous vehicle capable of operating without the presence of a driver inside the vehicle and the approval of the application. The bill would provide that approval of the application is effective no sooner than 180 days after the date the application is submitted.

The department would be authorized to charge a fee for the application in an amount necessary to recover all costs reasonably incurred by the department.

The people of the State of California do enact as follows:

SECTION 1. The Legislature finds and declares all of the following:

(a) Development is actively under way of new technology that, through the use of computers, sensors, and other systems, permits a motor vehicle to operate without the active control and continuous monitoring of a human operator. Motor vehicles with this technology, referred to as "autonomous vehicles," offer significant potential safety, mobility, and commercial benefits for individuals and businesses in the state and elsewhere.

(b) Autonomous vehicles have been operated safely on public roads in the state in recent years by entities developing and testing this technology.

(c) The State of California, which presently does not prohibit or specifically regulate the operation of autonomous vehicles, desires to encourage the current and future development, testing, and operation of autonomous vehicles on the public roads of the state. The state seeks to avoid interrupting these activities while at the same time creating appropriate rules intended to ensure that the testing and operation of autonomous vehicles in the state are conducted in a safe manner.

(d) Toward that end, the Legislature finds it appropriate to authorize the establishment of specific safety requirements for the testing and operation of autonomous vehicles, and to require that future testing and operation of autonomous vehicles in the state comply with those requirements.

SEC. 2. Division 16.6 (commencing with Section 38750) is added to the Vehicle Code, to read:

DIVISION 16.6. AUTONOMOUS VEHICLES

38750. (a) For purposes of this division, the following definitions apply:

(1) "Autonomous technology" means technology that has the capability to drive a vehicle without the active physical control or monitoring by a human operator.

(2) (A) "Autonomous vehicle" means any vehicle equipped with autonomous technology that has been integrated into that vehicle.

(B) An autonomous vehicle does not include a vehicle that is equipped with one or more collision avoidance systems, including, but not limited to, electronic blind spot assistance, automated emergency braking systems, park assist, adaptive cruise control, lane keep assist, lane departure warning, traffic jam and queuing assist, or other similar systems that enhance safety or provide driver assistance, but are not capable, collectively or singularly, of driving the vehicle without the active control or monitoring of a human operator.

(3) "Department" means the Department of Motor Vehicles.

(4) An "operator" of an autonomous vehicle is the person who is seated in the driver's seat, or if there is no person in the driver's seat, causes the autonomous technology to engage.

(5) A "manufacturer" of autonomous technology is the person as defined in Section 470 that originally manufactures a vehicle and equips autonomous technology on the originally completed vehicle or, in the case of a vehicle not originally equipped with autonomous technology by the vehicle manufacturer, the person that modifies the vehicle by installing autonomous technology to convert it to an autonomous vehicle after the vehicle was originally manufactured.

(b) An autonomous vehicle may be operated on public roads for testing purposes by a driver who possesses the proper class of license for the type of vehicle being operated if all of the following requirements are met:

(1) The autonomous vehicle is being operated on roads in this state solely by employees, contractors, or other persons designated by the manufacturer of the autonomous technology.

(2) The driver shall be seated in the driver's seat, monitoring the safe operation of the autonomous vehicle, and capable of taking over immediate manual control of the autonomous vehicle in the event of an autonomous technology failure or other emergency.

(3) Prior to the start of testing in this state, the manufacturer performing the testing shall obtain an instrument of insurance, surety bond, or proof of self-insurance in the amount of five million dollars (\$5,000,000), and shall provide evidence of the insurance, surety bond, or self-insurance to the department in the form and manner required by the department pursuant to the regulations adopted pursuant to subdivision (d).

(c) Except as provided in subdivision (b), an autonomous vehicle shall not be operated on public roads until the manufacturer submits an application to the department, and that application is approved by the department pursuant to the regulations adopted pursuant to subdivision (d). The application shall contain, at a minimum, all of the following certifications:

(1) A certification by the manufacturer that the autonomous technology satisfies all of the following requirements:

(A) The autonomous vehicle has a mechanism to engage and disengage the autonomous technology that is easily accessible to the operator.

(B) The autonomous vehicle has a visual indicator inside the cabin to indicate when the autonomous technology is engaged.

(C) The autonomous vehicle has a system to safely alert the operator if an autonomous technology failure is detected while the autonomous technology is engaged, and when an alert is given, the system shall do either of the following:

(i) Require the operator to take control of the autonomous vehicle.

(ii) If the operator does not or is unable to take control of the autonomous vehicle, the autonomous vehicle shall be capable of coming to a complete stop.

(D) The autonomous vehicle shall allow the operator to take control in multiple manners, including, without limitation, through the use of the brake, the accelerator pedal, or the steering wheel, and it shall alert the operator that the autonomous technology has been disengaged.

(E) The autonomous vehicle's autonomous technology meets Federal Motor Vehicle Safety Standards for the vehicle's model year and all other applicable safety standards and performance requirements set forth in state and federal law and the regulations promulgated pursuant to those laws.

(F) The autonomous technology does not make inoperative any Federal Motor Vehicle Safety Standards for the vehicle's model year and all other applicable safety standards and performance requirements set forth in state and federal law and the regulations promulgated pursuant to those laws.

(G) The autonomous vehicle has a separate mechanism, in addition to, and separate from, any other mechanism required by law, to capture and store the autonomous technology sensor data for at least 30 seconds before a collision occurs between the autonomous vehicle and another vehicle, object, or natural person while the vehicle is operating in autonomous mode. The autonomous technology sensor data shall be captured and stored in a read-only format by the mechanism so that the data is retained until extracted from the mechanism by an external device capable of downloading and storing the data. The data shall be preserved for three years after the date of the collision.

(2) A certification that the manufacturer has tested the autonomous technology on public roads and has complied with the testing standards, if any, established by the department pursuant to subdivision (d).

(3) A certification that the manufacturer will maintain a surety bond, or proof of self-insurance as specified in regulations adopted by the department pursuant to subdivision (d), in an amount of five million dollars (\$5,000,000).

(d) (1) As soon as practicable, but no later than January 1, 2015, the department shall adopt regulations setting forth requirements for the submission of evidence of insurance, surety bond, or self-insurance required by subdivision (b), and the submission and approval of an application to operate an autonomous vehicle pursuant to subdivision (c).

(2) The regulations shall include any testing, equipment, and performance standards, in addition to those established for purposes of subdivision (b),

that the department concludes are necessary to ensure the safe operation of autonomous vehicles on public roads, with or without the presence of a driver inside the vehicle. In developing these regulations, the department may consult with the Department of the California Highway Patrol, the Institute of Transportation Studies at the University of California, or any other entity identified by the department that has expertise in automotive technology, automotive safety, and autonomous system design.

(3) The department may establish additional requirements by the adoption of regulations, which it determines, in consultation with the Department of the California Highway Patrol, are necessary to ensure the safe operation of autonomous vehicles on public roads, including, but not limited to, regulations regarding the aggregate number of deployments of autonomous vehicles on public roads, special rules for the registration of autonomous vehicles, new license requirements for operators of autonomous vehicles, and rules for revocation, suspension, or denial of any license or any approval issued pursuant to this division.

(4) The department shall hold public hearings on the adoption of any regulation applicable to the operation of an autonomous vehicle without the presence of a driver inside the vehicle.

(e) (1) The department shall approve an application submitted by a manufacturer pursuant to subdivision (c) if it finds that the applicant has submitted all information and completed testing necessary to satisfy the department that the autonomous vehicles are safe to operate on public roads and the applicant has complied with all requirements specified in the regulations adopted by the department pursuant to subdivision (d).

(2) Notwithstanding paragraph (1), if the application seeks approval for autonomous vehicles capable of operating without the presence of a driver inside the vehicle, the department may impose additional requirements it deems necessary to ensure the safe operation of those vehicles, and may require the presence of a driver in the driver's seat of the vehicle if it determines, based on its review pursuant to paragraph (1), that such a requirement is necessary to ensure the safe operation of those vehicles on public roads. The department shall notify the Legislature of the receipt of an application from a manufacturer seeking approval to operate an autonomous vehicle capable of operating without the presence of a driver inside the vehicle and approval of the application. Approval of the application shall be effective no sooner than 180 days after the date the application is submitted.

(f) Nothing in this division shall limit or expand the existing authority to operate autonomous vehicles on public roads, until 120 days after the department adopts the regulations required by paragraph (1) of subdivision (d).

(g) Federal regulations promulgated by the National Highway Traffic Safety Administration shall supersede the provisions of this division when found to be in conflict with any other state law or regulation.

(h) The manufacturer of the autonomous technology installed on a vehicle shall provide a written disclosure to the purchaser of an autonomous vehicle

that describes what information is collected by the autonomous technology equipped on the vehicle. The department may promulgate regulations to assess a fee upon a manufacturer that submits an application pursuant to subdivision (c) to operate autonomous vehicles on public roads in an amount necessary to recover all costs reasonably incurred by the department.

O

NV

Assembly Bill No. 511-Committee on Transportation

CHAPTER.....

AN ACT relating to transportation; providing certain privileges to the owner or long-term lessee of a qualified alternative fuel vehicle; authorizing in this State the operation of, and a driver's license endorsement for operators of, autonomous vehicles; providing a penalty; and providing other matters properly relating thereto.

Legislative Counsel's Digest:

Existing law authorizes the Department of Transportation to adopt regulations to allow certified low emission and energy-efficient vehicles to be operated in a lane on a highway under its jurisdiction designated for the preferential use or exclusive use of high-occupancy vehicles. (NRS 484A.463) **Section 6** of this bill defines the term "qualified alternative fuel vehicle" in such a manner as to include within the definition both plug-in vehicles that are powered by an electric motor, and vehicles which are powered by an alternative fuel and meet specified federal emissions standards. **Section 7** of this bill requires that, with limited exceptions, each local authority shall establish a parking program for qualified alternative fuel vehicles. **Section 7** provides that the owner or long-term lessee of such a vehicle may: (1) apply to the local authority for a distinctive decal, label or other identifier that distinguishes the vehicle from other vehicles; and (2) while displaying the distinctive identifier, park the vehicle without the payment of a parking fee at certain times in certain public parking lots, parking areas and metered parking zones. **Section 10** of this bill authorizes the use of a qualified alternative fuel vehicle in high-occupancy vehicle lanes irrespective of the occupancy of the vehicle, if the Department of Transportation has adopted the necessary regulations. **Section 13** of this bill causes the provisions of this bill that pertain to qualified alternative fuel vehicles to expire by limitation ("sunset") as of January 1, 2018.

Section 8 of this bill requires the Department of Motor Vehicles to adopt regulations authorizing the operation of autonomous vehicles on highways within the State of Nevada. **Section 8** defines an "autonomous vehicle" to mean a motor vehicle that uses artificial intelligence, sensors and global positioning system coordinates to drive itself without the active intervention of a human operator. **Section 2** of this bill requires the Department, by regulation, to establish a driver's license endorsement for the operation of an autonomous vehicle on the highways of this State.

EXPLANATION - Matter in *bolded italics* is new; matter between brackets ~~omitted material~~ is material to be omitted.

THE PEOPLE OF THE STATE OF NEVADA, REPRESENTED IN
SENATE AND ASSEMBLY, DO ENACT AS FOLLOWS:

Section 1. (Deleted by amendment.)

Sec. 2. Chapter 483 of NRS is hereby amended by adding thereto a new section to read as follows:

1. *The Department shall by regulation establish a driver's license endorsement for the operation of an autonomous vehicle*



on the highways of this State. The driver's license endorsement described in this subsection must, in its restrictions or lack thereof, recognize the fact that a person is not required to actively drive an autonomous vehicle.

2. As used in this section, "autonomous vehicle" has the meaning ascribed to it in section 8 of this act.

Sec. 3. NRS 483.230 is hereby amended to read as follows:

483.230 1. Except persons expressly exempted in NRS 483.010 to 483.630, inclusive, *and section 2 of this act*, a person shall not drive any motor vehicle upon a highway in this State unless such person has a valid license as a driver under the provisions of NRS 483.010 to 483.630, inclusive, *and section 2 of this act* for the type or class of vehicle being driven.

2. Any person licensed as a driver under the provisions of NRS 483.010 to 483.630, inclusive, *and section 2 of this act* may exercise the privilege thereby granted upon all streets and highways of this State and shall not be required to obtain any other license to exercise such privilege by any county, municipal or local board or body having authority to adopt local police regulations.

3. Except persons expressly exempted in NRS 483.010 to 483.630, inclusive, *and section 2 of this act*, a person shall not steer or exercise any degree of physical control of a vehicle being towed by a motor vehicle upon a highway unless such person has a license to drive the type or class of vehicle being towed.

4. A person shall not receive a driver's license until the person surrenders to the Department all valid licenses in his or her possession issued to the person by this or any other jurisdiction. Surrendered licenses issued by another jurisdiction shall be returned by the Department to such jurisdiction. A person shall not have more than one valid driver's license.

Sec. 4. NRS 483.620 is hereby amended to read as follows:

483.620 It is a misdemeanor for any person to violate any of the provisions of NRS 483.010 to 483.630, inclusive, *and section 2 of this act* unless such violation is, by NRS 483.010 to 483.630, inclusive, *and section 2 of this act* or other law of this State, declared to be a felony.

Sec. 5. Chapter 484A of NRS is hereby amended by adding thereto the provisions set forth as sections 5.3 to 8, inclusive, of this act.

Sec. 5.3. *"Original equipment manufacturer" means the original manufacturer of a new vehicle or engine, or relating to the vehicle or engine in its original, certified configuration.*



Sec. 5.7. "Qualified alternative fuel" means compressed natural gas, hydrogen or propane.

Sec. 6. "Qualified alternative fuel vehicle" means a motor vehicle that:

- 1. Is equipped with four wheels;**
- 2. Is made by:**
 - (a) An original equipment manufacturer; or**
 - (b) A qualified vehicle modifier of alternative fuel vehicles;**
- 3. Is manufactured primarily for use on public streets, roads and highways;**
- 4. Has a manufacturer's gross vehicle weight rating of less than 8,500 pounds;**
- 5. Can maintain a maximum rate of speed of at least 70 miles per hour; and**
- 6. Is propelled:**
 - (a) To a significant extent by an electric motor which draws electricity from a battery that:**
 - (1) Has a capacity of not less than 4 kilowatt hours; and**
 - (2) Can be recharged from a source of electricity that is external to the vehicle; or**
 - (b) Solely by a qualified alternative fuel, and meets or exceeds the federal Tier 2 bin 2 exhaust emission standard, as set forth in 40 C.F.R. § 86.1811-04.**

Sec. 6.5. "Qualified vehicle modifier of alternative fuel vehicles" means a manufacturer directly authorized by an original equipment manufacturer to modify a vehicle produced by an original equipment manufacturer to run on a qualified alternative fuel.

Sec. 7. 1. Except as otherwise provided in subsection 6, a local authority that has within its jurisdiction a public metered parking zone, parking lot or parking area for the use of which a fee is charged, shall by ordinance establish a parking program for qualified alternative fuel vehicles pursuant to this section.

2. Upon the application of the owner or long-term lessee of a qualified alternative fuel vehicle, the local authority or its designee shall issue to the owner or long-term lessee a distinctive decal, label or other identifier that clearly distinguishes the qualified alternative fuel vehicle from other vehicles.

3. The board of county commissioners or the governing body of the city may charge a fee for the distinctive decal, label or other identifier issued pursuant to subsection 2 in an amount not to exceed \$10 annually.



4. Except as otherwise provided in subsection 5, the driver of a qualified alternative fuel vehicle displaying the distinctive decal, label or other identifier issued pursuant to subsection 2 may:

(a) Stop, stand or park the qualified alternative fuel vehicle in any public metered parking zone within the jurisdiction of the local authority without depositing a coin of United States currency of the designated denomination, or making payment using another acceptable method of payment, in the applicable parking meter; and

(b) Stop, stand or park the qualified alternative fuel vehicle in any public parking lot or parking area within the jurisdiction of the local authority without paying a parking fee.

5. In addition to the requirements set forth in this section, the local authority may by ordinance establish such other requirements as it determines necessary for the parking program for qualified alternative fuel vehicles, including, without limitation:

(a) Requiring that the driver of a qualified alternative fuel vehicle comply with any limits on the amount of time for stopping, standing or parking imposed on other drivers; and

(b) Requiring that the driver of a qualified alternative fuel vehicle pay applicable parking fees during certain special events or activities designated by the local authority, regardless of whether the vehicle displays a distinctive decal, label or other identifier issued pursuant to subsection 2.

6. The provisions of this section do not apply to any public metered parking zone, parking lot or parking area of an airport.

Sec. 8. 1. The Department shall adopt regulations authorizing the operation of autonomous vehicles on highways within the State of Nevada.

2. The regulations required to be adopted by subsection 1 must:

(a) Set forth requirements that an autonomous vehicle must meet before it may be operated on a highway within this State;

(b) Set forth requirements for the insurance that is required to test or operate an autonomous vehicle on a highway within this State;

(c) Establish minimum safety standards for autonomous vehicles and their operation;

(d) Provide for the testing of autonomous vehicles;

(e) Restrict the testing of autonomous vehicles to specified geographic areas; and



(f) Set forth such other requirements as the Department determines to be necessary.

3. As used in this section:

(a) "Artificial intelligence" means the use of computers and related equipment to enable a machine to duplicate or mimic the behavior of human beings.

(b) "Autonomous vehicle" means a motor vehicle that uses artificial intelligence, sensors and global positioning system coordinates to drive itself without the active intervention of a human operator.

(c) "Sensors" includes, without limitation, cameras, lasers and radar.

Sec. 9. NRS 484A.010 is hereby amended to read as follows:

484A.010 As used in chapters 484A to 484E, inclusive, of NRS, unless the context otherwise requires, the words and terms defined in NRS 484A.015 to 484A.320, inclusive, **and sections 5.3 to 6.5, inclusive, of this act** have the meanings ascribed to them in those sections.

Sec. 10. NRS 484A.463 is hereby amended to read as follows:

484A.463 1. To the extent not inconsistent with federal law, the Department of Transportation may, in consultation with the Federal Highway Administration and the United States Environmental Protection Agency, adopt regulations establishing a program to allow a vehicle that is certified by the Administrator of the United States Environmental Protection Agency as a low emission and energy-efficient vehicle to be operated in a lane that is designated for the use of high-occupancy vehicles pursuant to NRS 484A.460.

2. As used in this section, "low emission and energy-efficient vehicle" has the meaning ascribed to it in 23 U.S.C. § 166(f)(3). **The term includes, without limitation, a qualified alternative fuel vehicle.**

Sec. 11. NRS 484B.523 is hereby amended to read as follows:

484B.523 1. ~~{When}~~ **Except as otherwise provided in section 7 of this act, when** parking meters are erected by any local authority pursuant to an adopted ordinance giving notice thereof, it is unlawful for any person to stop, stand or park a vehicle in any metered parking zone for a period of time longer than designated by such parking meters upon a deposit of a coin of United States currency of the designated denomination.

2. Every vehicle shall be parked wholly within the metered parking space for which the meter shows parking privilege has been granted.



3. It is unlawful for any unauthorized person to remove, deface, tamper with, open, willfully break, destroy or damage any parking meter, or willfully to manipulate any parking meter in such a manner that the indicator will fail to show the correct amount of unexpired time before a violation occurs.

Sec. 12. 1. The Department of Motor Vehicles shall adopt the regulations necessary to implement the provisions of sections 2 and 8 of this act on or before March 1, 2012.

2. Each local authority to which the provisions of section 7 of this act apply shall adopt the ordinances necessary to implement the provisions of sections 5.3 to 7, inclusive, 9, 10 and 11 of this act on or before January 1, 2012.

3. As used in this section, "local authority" has the meaning ascribed to it in NRS 484A.115.

Sec. 13. 1. This section and section 12 of this act become effective upon passage and approval.

2. Sections 5 to 7, inclusive, 9, 10 and 11 of this act become effective on January 1, 2012.

3. Sections 2, 3, 4 and 8 of this act become effective on March 1, 2012.

4. The following provisions expire by limitation on January 1, 2018:

- (a) Sections 5 to 7, inclusive, of this act;
- (b) The amendatory provisions of sections 9, 10 and 11 of this act; and
- (c) Subsections 2 and 3 of section 12 of this act.



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CS/HB 1207, Engrossed 1

2012 Legislature

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An act relating to vehicles with autonomous technology; defining the term "autonomous technology"; providing legislative intent and findings; amending s. 316.003, F.S.; defining the terms "autonomous vehicle" and "autonomous technology" when used in provisions for traffic control; creating s. 316.85, F.S.; authorizing a person who possesses a valid driver license to operate an autonomous vehicle; specifying that the person who causes the vehicle's autonomous technology to engage is the operator; creating s. 319.145, F.S.; requiring an autonomous vehicle registered in this state to meet federal standards and regulations for a motor vehicle; specifying certain requirements for such vehicle; providing for the application of certain federal regulations; authorizing the operation of vehicles equipped with autonomous technology by certain persons for testing purposes under certain conditions; requiring an instrument of insurance, surety bond, or self-insurance prior to the testing of a vehicle; limiting liability of the original manufacturer of a vehicle converted to an autonomous vehicle; directing the department to prepare a report on the safe testing and operation of vehicles equipped with autonomous technology and submit the report to the Legislature by a certain date; providing an effective date.

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CS/HB 1207, Engrossed 1

2012 Legislature

29 Be It Enacted by the Legislature of the State of Florida:

30

31 Section 1. Vehicles equipped with autonomous technology;
 32 intent.-

33 (1) As used in this section, the term "autonomous
 34 technology" means technology installed on a motor vehicle that
 35 has the capability to drive the vehicle on which the technology
 36 is installed without the active control or monitoring by a human
 37 operator. The term excludes a motor vehicle enabled with active
 38 safety systems or driver assistance systems, including, without
 39 limitation, a system to provide electronic blind spot
 40 assistance, crash avoidance, emergency braking, parking
 41 assistance, adaptive cruise control, lane keep assistance, lane
 42 departure warning, or traffic jam and queuing assistant, unless
 43 any such system alone or in combination with other systems
 44 enables the vehicle on which the technology is installed to
 45 drive without the active control or monitoring by a human
 46 operator.

47 (2) It is the intent of the Legislature to encourage the
 48 safe development, testing, and operation of motor vehicles with
 49 autonomous technology on the public roads of the state. The
 50 Legislature finds that the state does not prohibit or
 51 specifically regulate the testing or operation of autonomous
 52 technology in motor vehicles on public roads.

53 Section 2. Subsection (89) is added to section 316.003,
 54 Florida Statutes, to read:

55 316.003 Definitions.—The following words and phrases, when
 56 used in this chapter, shall have the meanings respectively

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2012 Legislature

57 | ascribed to them in this section, except where the context
 58 | otherwise requires:

59 | (89) AUTONOMOUS VEHICLE.—Any vehicle equipped with
 60 | autonomous technology. The term "autonomous technology" means
 61 | technology installed on a motor vehicle that has the capability
 62 | to drive the vehicle on which the technology is installed
 63 | without the active control or monitoring by a human operator.
 64 | The term excludes a motor vehicle enabled with active safety
 65 | systems or driver assistance systems, including, without
 66 | limitation, a system to provide electronic blind spot
 67 | assistance, crash avoidance, emergency braking, parking
 68 | assistance, adaptive cruise control, lane keep assistance, lane
 69 | departure warning, or traffic jam and queuing assistant, unless
 70 | any such system alone or in combination with other systems
 71 | enables the vehicle on which the technology is installed to
 72 | drive without the active control or monitoring by a human
 73 | operator.

74 | Section 3. Section 316.85, Florida Statutes, is created to
 75 | read:

76 | 316.85 Autonomous vehicles; operation.—

77 | (1) A person who possesses a valid driver license may
 78 | operate an autonomous vehicle in autonomous mode.

79 | (2) For purposes of this chapter, unless the context
 80 | otherwise requires, a person shall be deemed to be the operator
 81 | of an autonomous vehicle operating in autonomous mode when the
 82 | person causes the vehicle's autonomous technology to engage,
 83 | regardless of whether the person is physically present in the
 84 | vehicle while the vehicle is operating in autonomous mode.

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85 Section 4. Section 319.145, Florida Statutes, is created
86 to read:

87 319.145 Autonomous vehicles.—

88 (1) An autonomous vehicle registered in this state must
89 continue to meet federal standards and regulations for a motor
90 vehicle. The vehicle shall:

91 (a) Have a means to engage and disengage the autonomous
92 technology which is easily accessible to the operator.

93 (b) Have a means, inside the vehicle, to visually indicate
94 when the vehicle is operating in autonomous mode.

95 (c) Have a means to alert the operator of the vehicle if a
96 technology failure affecting the ability of the vehicle to
97 safely operate autonomously is detected while the vehicle is
98 operating autonomously in order to indicate to the operator to
99 take control of the vehicle.

100 (d) Be capable of being operated in compliance with the
101 applicable traffic and motor vehicle laws of this state.

102 (2) Federal regulations promulgated by the National
103 Highway Traffic Safety Administration shall supersede this
104 section when found to be in conflict with this section.

105 Section 5. (1) Vehicles equipped with autonomous
106 technology may be operated on roads in this state by employees,
107 contractors, or other persons designated by manufacturers of
108 autonomous technology for the purpose of testing the technology.
109 For testing purposes, a human operator shall be present in the
110 autonomous vehicle such that he or she has the ability to
111 monitor the vehicle's performance and intervene, if necessary,
112 unless the vehicle is being tested or demonstrated on a closed

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2012 Legislature

113 course. Prior to the start of testing in this state, the entity
 114 performing the testing must submit to the Department of Highway
 115 Safety and Motor Vehicles an instrument of insurance, surety
 116 bond, or proof of self-insurance acceptable to the department in
 117 the amount of \$5 million.

118 (2) The original manufacturer of a vehicle converted by a
 119 third party into an autonomous vehicle shall not be liable in,
 120 and shall have a defense to and be dismissed from, any legal
 121 action brought against the original manufacturer by any person
 122 injured due to an alleged vehicle defect caused by the
 123 conversion of the vehicle, or by equipment installed by the
 124 converter, unless the alleged defect was present in the vehicle
 125 as originally manufactured.

126 (3) By February 12, 2014, the Department of Highway Safety
 127 and Motor Vehicles shall submit a report to the President of the
 128 Senate and the Speaker of the House of Representatives
 129 recommending additional legislative or regulatory action that
 130 may be required for the safe testing and operation of motor
 131 vehicles equipped with autonomous technology.

132 Section 6. This act shall take effect July 1, 2012.



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PRELIMINARY DRAFT - NOT READY FOR INTRODUCTION

SAN
KMF N/A

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1 **AN ACT** . . .; **relating to:** the operation of autonomous vehicles on the highways,
2 granting rule-making authority, and providing a penalty.

Analysis by the Legislative Reference Bureau

This bill authorizes operation of autonomous vehicles on highways in this state, for the purpose of testing the autonomous technology installed in the vehicle, if specified requirements are met. An "autonomous vehicle" is a motor vehicle equipped with autonomous technology and "autonomous technology" is technology installed on a motor vehicle that has the capability to drive the vehicle without ~~the~~ active physical control or monitoring by a human operator. An autonomous vehicle is operated in "autonomous mode" when the vehicle is operated with the vehicle's autonomous technology engaged.

Under this bill, an autonomous vehicle may be operated in autonomous mode on a highway if all of the following apply: 1) the vehicle is operated by an employee, contractor, or other person designated by a manufacturer of autonomous technology for the purpose of testing the autonomous technology; 2) a human operator is present in the vehicle and has the ability to monitor the vehicle's performance and intervene, if necessary, to disengage the autonomous technology and take immediate control of the autonomous vehicle; 3) the human operator has a valid operator's license; 4) there is motor vehicle liability insurance coverage for operation of the autonomous vehicle of at least \$5,000,000; 5) the vehicle has a means to engage and disengage the autonomous technology that is easily accessible to the operator; 6) the vehicle has a means to visually indicate when the vehicle is operating in autonomous mode; 7) the vehicle has a means to alert the operator of an autonomous technology failure so that

the operator may take control of the vehicle; 8) the vehicle is capable of being operated in compliance with applicable traffic and motor vehicle laws; 9) while the vehicle is operating in autonomous mode, the vehicle captures and stores autonomous technology sensor data for at least 30 seconds before any collision; and 10) the vehicle satisfies all requirements imposed by rule by the Department of Transportation (DOT). DOT may promulgate rules establishing requirements for autonomous vehicles, including minimum safety standards for these vehicles and for their operation. For purposes pertaining to the operation of an autonomous vehicle operating in autonomous mode, the “operator” is the human operator required to be present in the vehicle or, if no human operator is present, the person who causes the vehicle’s autonomous technology to engage. The bill also requires the manufacturer of autonomous technology to disclose what information is collected by the autonomous technology.

The bill prohibits the operation of an autonomous vehicle in autonomous mode on a highway in this state unless the operation is in compliance with the foregoing requirements. A person who violates this prohibition may be required to forfeit not less than \$100 nor more than \$1,000.

For further information see the *state* fiscal estimate, which will be printed as an appendix to this bill.

The people of the state of Wisconsin, represented in senate and assembly, do enact as follows:

1 **SECTION 1.** 110.23 of the statutes is created to read:

2 **110.23 Autonomous vehicles.** (1) Except as otherwise provided under
3 federal law and regulations, in addition to all applicable requirements for the vehicle
4 under chs. 110 and 341 to 349, an autonomous vehicle may not be operated in
5 autonomous mode on a highway in this state unless the autonomous vehicle satisfies
6 all of the following requirements:

7 (a) The vehicle has a means to engage and disengage the autonomous
8 technology that is easily accessible to the operator.

9 (b) The vehicle has a means, inside the vehicle, to visually indicate when the
10 vehicle is operating in autonomous mode.

1 (c) The vehicle has a means to alert the operator of an autonomous technology
2 failure detected while the vehicle is operating in autonomous mode so that the
3 operator may take control of the vehicle.

4 (d) The vehicle is capable of being operated in compliance with the applicable
5 traffic and motor vehicle laws of this state.

6 (e) While the vehicle is operating in autonomous mode, the vehicle captures and
7 stores, in a read-only format, autonomous technology sensor data for at least 30
8 seconds before any collision involving the autonomous vehicle.

9 (f) The vehicle satisfies all requirements imposed by the department by rule
10 under sub. (3).

11 (2) The manufacturer of autonomous technology shall provide a written
12 disclosure to the purchaser of the autonomous technology, or to the purchaser of an
13 autonomous vehicle equipped with the autonomous technology, that describes any
14 information that is collected by the autonomous technology.

15 (3) The department may promulgate rules establishing requirements for
16 autonomous vehicles operating in autonomous mode on highways in this state,
17 including minimum safety standards for these vehicles and for their operation.

18 **SECTION 2.** 340.01 (4^k), (4^m) and (4^p) of the statutes are created to read:

19 340.01 (4^k) “Autonomous mode” means, with respect to an autonomous
20 vehicle, the operation of the autonomous vehicle with the vehicle’s autonomous
21 technology engaged, regardless of whether any person is physically present in the
22 vehicle.

23 (4^m) “Autonomous technology” means technology installed on a motor vehicle
24 that has the capability to drive the vehicle without ~~the~~^e active physical control or
25 monitoring by a human operator. “Autonomous technology” does not include

1 collision avoidance, driver assistance, or safety systems such as electronic blind spot
2 assistance, automated emergency braking, parking assistance, adaptive cruise
3 control, lane-keep assistance or lane-departure warning, or traffic jam and queuing
4 assistance, unless any such system alone or in combination with other systems
5 enables the vehicle to be driven without the active physical control or monitoring by
6 a human operator.

7 (4p) "Autonomous vehicle" means any motor vehicle equipped with
8 autonomous technology.

9 SECTION 3. 340.01 (28c) of the statutes is created to read:

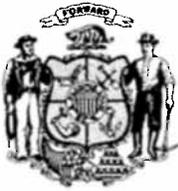
10 340.01 (28c) "Manufacturer of autonomous technology" is the person that
11 originally manufactures a motor vehicle and equips autonomous technology on the
12 originally completed motor vehicle or, in the case of a motor vehicle not originally
13 equipped with autonomous technology by the vehicle manufacturer, the person that
14 modifies the motor vehicle by installing autonomous technology to convert it to an
15 autonomous vehicle after the motor vehicle was originally manufactured.

16 SECTION 4. 346.921 of the statutes is created to read:

17 346.921 Operation of autonomous vehicles. (1) (a) Except as provided in
18 par. (b), an autonomous vehicle may not be operated in autonomous mode on a
19 highway in this state.

20 (b) Subject to s. 110.23, an autonomous vehicle may be operated in autonomous
21 mode on a highway in this state if all of the following apply:

22 1. The autonomous vehicle is operated by an employee, contractor, or other
23 person designated by a manufacturer of autonomous technology for the purpose of
24 testing the autonomous technology.



Joan



LRB-0498/1

ARG:eev:jf

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PRELIMINARY DRAFT - NOT READY FOR INTRODUCTION

2/14 H/c w/ Cassie - add word on p. 3

D-note

only changes - pp. 2-3

d-note

1 **AN ACT to create** 110.23, 340.01 (4k), (4m) and (4p), 340.01 (28c), 346.921 and
2 346.95 (12) of the statutes; **relating to:** the operation of autonomous vehicles
3 on the highways, granting rule-making authority, and providing a penalty.

Analysis by the Legislative Reference Bureau

This bill authorizes operation of autonomous vehicles on highways in this state, for the purpose of testing the autonomous technology installed in the vehicle, if specified requirements are met. An "autonomous vehicle" is a motor vehicle equipped with autonomous technology and "autonomous technology" is technology installed on a motor vehicle that has the capability to drive the vehicle without active physical control or monitoring by a human operator. An autonomous vehicle is operated in "autonomous mode" when the vehicle is operated with the vehicle's autonomous technology engaged.

Under this bill, an autonomous vehicle may be operated in autonomous mode on a highway if all of the following apply: 1) the vehicle is operated by an employee, contractor, or other person designated by a manufacturer of autonomous technology for the purpose of testing the autonomous technology; 2) a human operator is present in the vehicle and has the ability to monitor the vehicle's performance and intervene, if necessary, to disengage the autonomous technology and take immediate control of the autonomous vehicle; 3) the human operator has a valid operator's license; 4) there is motor vehicle liability insurance coverage for operation of the autonomous vehicle of at least \$5,000,000; 5) the vehicle has a means to engage and disengage the autonomous technology that is easily accessible to the operator; 6) the vehicle has a means to visually indicate when the vehicle is operating in autonomous mode; 7) the

and performance

vehicle has a means to alert the operator of an autonomous technology failure so that the operator may take control of the vehicle; 8) the vehicle is capable of being operated in compliance with applicable traffic and motor vehicle laws; 9) while the vehicle is operating in autonomous mode, the vehicle captures and stores autonomous technology sensor data for at least 30 seconds before any collision; and 10) the vehicle satisfies all requirements imposed by rule by the Department of Transportation (DOT). DOT may promulgate rules establishing requirements for autonomous vehicles, including minimum safety standards for these vehicles and for their operation. For purposes pertaining to the operation of an autonomous vehicle operating in autonomous mode, the "operator" is the human operator required to be present in the vehicle or, if no human operator is present, the person who causes the vehicle's autonomous technology to engage. The bill also requires the manufacturer of autonomous technology to disclose what information is collected by the autonomous technology.

The bill prohibits the operation of an autonomous vehicle in autonomous mode on a highway in this state unless the operation is in compliance with the foregoing requirements. A person who violates this prohibition may be required to forfeit not less than \$100 nor more than \$1,000.

For further information see the *state* fiscal estimate, which will be printed as an appendix to this bill.

The people of the state of Wisconsin, represented in senate and assembly, do enact as follows:

1 **SECTION 1.** 110.23 of the statutes is created to read:

2 **110.23 Autonomous vehicles.** (1) Except as otherwise provided under
3 federal law and regulations, in addition to all applicable requirements for the vehicle
4 under chs. 110 and 341 to 349, an autonomous vehicle may not be operated in
5 autonomous mode on a highway in this state unless the autonomous vehicle satisfies
6 all of the following requirements:

7 (a) The vehicle has a means to engage and disengage the autonomous
8 technology that is easily accessible to the operator.

9 (b) The vehicle has a means, inside the vehicle, to visually indicate when the
10 vehicle is operating in autonomous mode.

1 (c) The vehicle has a means to alert the operator of an autonomous technology
2 failure detected while the vehicle is operating in autonomous mode so that the
3 operator may take control of the vehicle.

4 (d) The vehicle is capable of being operated in compliance with the applicable
5 traffic and motor vehicle laws of this state.

6 (e) While the vehicle is operating in autonomous mode, the vehicle captures and
7 stores, in a read-only format, autonomous technology sensor data for at least 30
8 seconds before any collision involving the autonomous vehicle.

9 (f) The vehicle satisfies all requirements imposed by the department by rule
10 under sub. (3).

11 (2) The manufacturer of autonomous technology shall provide a written
12 disclosure to the purchaser of the autonomous technology, or to the purchaser of an
13 autonomous vehicle equipped with the autonomous technology, that describes any
14 information that is collected by the autonomous technology.

15 (3) The department may promulgate rules establishing requirements for
16 autonomous vehicles operating in autonomous mode on highways in this state,
17 including minimum safety ^{and performance} standards for these vehicles and for their operation.

18 **SECTION 2.** 340.01 (4k), (4m) and (4p) of the statutes are created to read:

19 340.01 (4k) “Autonomous mode” means, with respect to an autonomous
20 vehicle, the operation of the autonomous vehicle with the vehicle’s autonomous
21 technology engaged, regardless of whether any person is physically present in the
22 vehicle.

23 (4m) “Autonomous technology” means technology installed on a motor vehicle
24 that has the capability to drive the vehicle without active physical control or
25 monitoring by a human operator. “Autonomous technology” does not include

1 collision avoidance, driver assistance, or safety systems such as electronic blind spot
2 assistance, automated emergency braking, parking assistance, adaptive cruise
3 control, lane-keep assistance or lane-departure warning, or traffic jam and queuing
4 assistance, unless any such system alone or in combination with other systems
5 enables the vehicle to be driven without active physical control or monitoring by a
6 human operator.

7 (4p) “Autonomous vehicle” means any motor vehicle equipped with
8 autonomous technology.

9 SECTION 3. 340.01 (28c) of the statutes is created to read:

10 340.01 (28c) “Manufacturer of autonomous technology” is the person that
11 originally manufactures a motor vehicle and equips autonomous technology on the
12 originally completed motor vehicle or, in the case of a motor vehicle not originally
13 equipped with autonomous technology by the vehicle manufacturer, the person that
14 modifies the motor vehicle by installing autonomous technology to convert it to an
15 autonomous vehicle after the motor vehicle was originally manufactured.

16 SECTION 4. 346.921 of the statutes is created to read:

17 346.921 Operation of autonomous vehicles. (1) (a) Except as provided in
18 par. (b), an autonomous vehicle may not be operated in autonomous mode on a
19 highway in this state.

20 (b) Subject to s. 110.23, an autonomous vehicle may be operated in autonomous
21 mode on a highway in this state if all of the following apply:

22 1. The autonomous vehicle is operated by an employee, contractor, or other
23 person designated by a manufacturer of autonomous technology for the purpose of
24 testing the autonomous technology.

1 2. A human operator is present in the autonomous vehicle and has the ability
2 to monitor the vehicle's performance and intervene, if necessary, to disengage the
3 autonomous technology and take immediate control of the autonomous vehicle.

4 3. The human operator described in subd. 2. possesses a valid operator's license
5 for the vehicle class to which the autonomous vehicle belongs.

6 4. Prior to the start of testing, the person performing the testing has provided
7 to the department a motor vehicle liability policy covering operation of the
8 autonomous vehicle. For purposes of this subdivision, "motor vehicle liability policy"
9 has the meaning given in s. 344.61 (2), except that the minimum policy limit for
10 bodily injury to or death of 2 or more persons in any one accident shall be \$5,000,000.

11 (2) For purposes of chs. 110 and 341 to 349 and 351, the operator of an
12 autonomous vehicle operating in autonomous mode is the human operator present
13 as required under sub. (1) (b) 2. or, if no human operator is present, the person who
14 causes the vehicle's autonomous technology to engage.

15 **SECTION 5.** 346.95 (12) of the statutes is created to read:

16 346.95 (12) Any person violating s. 346.921 may be required to forfeit not less
17 than \$100 nor more than \$1,000.

18 **SECTION 6. Initial applicability.**

19 (1) This act first applies to vehicles operated on the effective date of this
20 subsection.

21 **SECTION 7. Effective date.**

22 (1) This act takes effect on the first day of the 7th month beginning after
23 publication.

24

(END)

D-Note

DRAFTER'S NOTE
FROM THE
LEGISLATIVE REFERENCE BUREAU

LRB-0498/1dn

ARG: (.....)

eev

date

Following up on our conversation, under ss. 340.01[✓] (22) and 990.01[✓] (12), the term "highway" in the statutes basically means all public roads.

Aaron R. Gary
Legislative Attorney
Phone: (608) 261-6926
E-mail: aaron.gary@legis.wisconsin.gov

DRAFTER'S NOTE
FROM THE
LEGISLATIVE REFERENCE BUREAU

LRB-0498/1dn
ARG:eev:rs

February 15, 2013

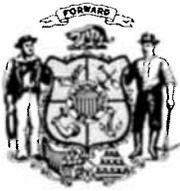
Following up on our conversation, under ss. 340.01 (22) and 990.01 (12), the term "highway" in the statutes basically means all public roads.

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Rose, Stefanie

From: Jurenci, Cassie
Sent: Friday, February 15, 2013 9:20 AM
To: LRB.Legal
Subject: Draft Review: LRB -0498/1 Topic: Autonomous vehicles

Please Jacket LRB -0498/1 for the SENATE.



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2013 BILL

2/26 tlc w/ Cathy - redraft to make it apply to allow all operation, not just testing

refn

1 AN ACT to create 110.23, 340.01 (4k), (4m) and (4p), 340.01 (28c), 346.921 and
2 346.95 (12) of the statutes; relating to: the operation of autonomous vehicles
3 on the highways, granting rule-making authority, and providing a penalty.

Analysis by the Legislative Reference Bureau

This bill authorizes operation of autonomous vehicles on highways in this state for the purpose of testing the autonomous technology installed in the vehicle, if specified requirements are met. An "autonomous vehicle" is a motor vehicle equipped with autonomous technology and "autonomous technology" is technology installed on a motor vehicle that has the capability to drive the vehicle without active physical control or monitoring by a human operator. An autonomous vehicle is operated in "autonomous mode" when the vehicle is operated with the vehicle's autonomous technology engaged.

Under this bill, an autonomous vehicle may be operated in autonomous mode on a highway if all of the following apply: 1) the vehicle is operated by an employee, contractor, or other person designated by a manufacturer of autonomous technology for the purpose of testing the autonomous technology; 2) a human operator is present in the vehicle and has the ability to monitor the vehicle's performance and intervene, if necessary, to disengage the autonomous technology and take immediate control of the autonomous vehicle; 3) the human operator has a valid operator's license; 4) there is motor vehicle liability insurance coverage for operation of the autonomous vehicle of at least \$5,000,000; 5) the vehicle has a means to engage and disengage the autonomous technology that is easily accessible to the operator; 6) the vehicle has a

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means to visually indicate when the vehicle is operating in autonomous mode; ⁷ 7) the vehicle has a means to alert the operator of an autonomous technology failure so that the operator may take control of the vehicle; ⁶ 8) the vehicle is capable of being operated in compliance with applicable traffic and motor vehicle laws; ⁸ 9) while the vehicle is operating in autonomous mode, the vehicle captures and stores autonomous technology sensor data for at least 30 seconds before any collision; and ⁹ 10) the vehicle satisfies all requirements imposed by rule by the Department of Transportation (DOT). DOT may promulgate rules establishing requirements for autonomous vehicles, including minimum safety and performance standards for these vehicles and for their operation. For purposes pertaining to the operation of an autonomous vehicle operating in autonomous mode, the “operator” is the human operator required to be present in the vehicle or, if no human operator is present, the person who causes the vehicle’s autonomous technology to engage. The bill also requires the manufacturer of autonomous technology to disclose what information is collected by the autonomous technology.

The bill prohibits the operation of an autonomous vehicle in autonomous mode on a highway in this state unless the operation is in compliance with the foregoing requirements. A person who violates this prohibition may be required to forfeit not less than \$100 nor more than \$1,000.

For further information see the *state* fiscal estimate, which will be printed as an appendix to this bill.

The people of the state of Wisconsin, represented in senate and assembly, do enact as follows:

1 **SECTION 1.** 110.23 of the statutes is created to read:

2 **110.23 Autonomous vehicles.** (1) Except as otherwise provided under
3 federal law and regulations, in addition to all applicable requirements for the vehicle
4 under chs. 110 and 341 to 349, an autonomous vehicle may not be operated in
5 autonomous mode on a highway in this state unless the autonomous vehicle satisfies
6 all of the following requirements:

7 (a) The vehicle has a means to engage and disengage the autonomous
8 technology that is easily accessible to the operator.

9 (b) The vehicle has a means, inside the vehicle, to visually indicate when the
10 vehicle is operating in autonomous mode.

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1 (c) The vehicle has a means to alert the operator of an autonomous technology
2 failure detected while the vehicle is operating in autonomous mode so that the
3 operator may take control of the vehicle.

4 (d) The vehicle is capable of being operated in compliance with the applicable
5 traffic and motor vehicle laws of this state.

6 (e) While the vehicle is operating in autonomous mode, the vehicle captures and
7 stores, in a read-only format, autonomous technology sensor data for at least 30
8 seconds before any collision involving the autonomous vehicle.

9 (f) The vehicle satisfies all requirements imposed by the department by rule
10 under sub. (3).

11 (2) The manufacturer of autonomous technology shall provide a written
12 disclosure to the purchaser of the autonomous technology, or to the purchaser of an
13 autonomous vehicle equipped with the autonomous technology, that describes any
14 information that is collected by the autonomous technology.

15 (3) The department may promulgate rules establishing requirements for
16 autonomous vehicles operating in autonomous mode on highways in this state,
17 including minimum safety and performance standards for these vehicles and for
18 their operation.

19 **SECTION 2.** 340.01 (4k), (4m) and (4p) of the statutes are created to read:

20 340.01 (4k) “Autonomous mode” means, with respect to an autonomous
21 vehicle, the operation of the autonomous vehicle with the vehicle’s autonomous
22 technology engaged, regardless of whether any person is physically present in the
23 vehicle.

24 (4m) “Autonomous technology” means technology installed on a motor vehicle
25 that has the capability to drive the vehicle without active physical control or

BILL**SECTION 2**

1 monitoring by a human operator. “Autonomous technology” does not include
2 collision avoidance, driver assistance, or safety systems such as electronic blind spot
3 assistance, automated emergency braking, parking assistance, adaptive cruise
4 control, lane-keep assistance or lane-departure warning, or traffic jam and queuing
5 assistance, unless any such system alone or in combination with other systems
6 enables the vehicle to be driven without active physical control or monitoring by a
7 human operator.

8 (4p) “Autonomous vehicle” means any motor vehicle equipped with
9 autonomous technology.

10 **SECTION 3.** 340.01 (28c) of the statutes is created to read:

11 340.01 (28c) “Manufacturer of autonomous technology” is the person that
12 originally manufactures a motor vehicle and equips autonomous technology on the
13 originally completed motor vehicle or, in the case of a motor vehicle not originally
14 equipped with autonomous technology by the vehicle manufacturer, the person that
15 modifies the motor vehicle by installing autonomous technology to convert it to an
16 autonomous vehicle after the motor vehicle was originally manufactured.

17 **SECTION 4.** 346.921 of the statutes is created to read:

18 **346.921 Operation of autonomous vehicles.** (1) (a) Except as provided in
19 par. (b), an autonomous vehicle may not be operated in autonomous mode on a
20 highway in this state.

21 (b) Subject to s. 110.23, an autonomous vehicle may be operated in autonomous
22 mode on a highway in this state if all of the following apply:

23 1. The autonomous vehicle is operated by an employee, contractor, or other
24 person designated by a manufacturer of autonomous technology for the purpose of
25 testing the autonomous technology.

