

Date of Hearing: June 21, 2021

ASSEMBLY COMMITTEE ON TRANSPORTATION

Laura Friedman, Chair

SB 66 (Allen) – As Amended April 28, 2021

SENATE VOTE: 39-0

SUBJECT: California Council on the Future of Transportation: advisory committee: autonomous vehicle technology

SUMMARY: Requires the Secretary of the California Transportation Agency (CalSTA) to establish an advisory committee known as the California Council on the Future of Transportation. Specifically, **this bill:**

- 1) Makes findings and declarations that California, as a technological hub for innovation, should support the continued research and deployment of autonomous vehicle (AV) technology and that the deployment of AVs should support a variety of related state safety, environmental, jobs, equity, and mobility efforts.

Establishment of the Council

- 2) Requires the Secretary of CalSTA to establish an advisory committee known as the California Council on the Future of Transportation (Council).
- 3) Requires the Council to provide the Governor and the Legislature with recommendations for changes in state policy to ensure that as AVs are deployed, they enhance the state's efforts to increase road and transit safety, promote equity, and meet public health and environmental objectives.

Council membership

- 4) Specifies that the Council shall be chaired by the Secretary and consist of the following additional members:
The Secretary of the Natural Resources Agency or the Secretary's designee; the Secretary of Labor and Workforce Development or the Secretary's designee; the Chair of the California Transportation Commission (CTC) or the Chair's designee; the Director of the Office of Planning and Research (OPR) or the Director's designee; the Director of the Department of Transportation or the Director's designee; the Commissioner of the California Highway Patrol or the Commissioner's designee; the Insurance Commissioner or the Commissioner's designee; the Director of the Department of Motor Vehicles (DMV) or the Director's designee; the Director of the Governor's Office of Business and Economic Development or the Director's designee; the Chair of the State Air Resources Board (CARB) or the Chair's designee; a member of the Public Utilities Commission (CPUC) designated by the president of the Commission; the Chair of the California Privacy Protection Agency or the Chair's designee.
- 5) Requires the Secretary, in consultation of the state government council members listed above, to appoint 11 public members who represent any of the following interests:
The insurance industry; a bona fide labor organization that represents transportation workers; a motorized and nonmotorized road user group; a science, environmental, environmental justice, equity, public health, or disability rights organization; an

organization that represents aging adults; a California public research institution; a local government; a local transit agency; a vehicle or motorcycle manufacturer or an organization that represents vehicle manufacturers; or a technology company that develops autonomous technology or an organization that represents technology companies that are developing autonomous technology.

- 6) Specifies that the representatives appointed by the Secretary shall serve four-year terms and may be reappointed to consecutive terms.

Council process and report

- 7) Requires the Council to gather and consider public comment on issues, concerns, and policies related to AVs and to submit a report to the Legislature with recommendations for statewide policy changes and updates, and any additional research or data needed, no later than January 1, 2024.
- 8) Requires the Council to update the report, or submit a new report, of its recommendations biennially thereafter or more frequently at the Secretary's discretion.
- 9) Authorizes the Council to submit interim recommendations, considerations, or any other information before submitting the required reports.
- 10) Requires the Council to include in its report policy recommendations on topics, including, but not limited to:
 - a) Enhancing safety for all road and transit users in the near and long term, including potential changes to traffic laws, and licensing and registration, and emergency response, taking into account changes in AV technology over time.
 - b) Infrastructure improvements needed for the safe operation of AVs.
 - c) Improving how individuals travel, including, but not limited to, reducing traffic congestion and vehicle miles traveled.
 - d) Furthering the state's environmental, public health, and energy objectives, including specified planning priorities.
 - e) Promoting the integration of new mobility services with walking, bicycling, transit, and other modes of travel.
 - f) Labor and economic impacts that include, but are not limited to, potential job loss, worker displacement and deskilling, workforce training and development program and funding needs, negative effects on public transit services, and job creation, and developments in goods movement and freight.
 - g) Increasing the availability of accessible mobility options, particularly for individuals with technological, financial, cultural, and other barriers to mobility or with different physical, sensory, and cognitive abilities, that provide accessible physical equipment and communication interfaces.
 - h) Potential changes to insurance requirements.
 - i) Identifying, assessing, and mitigating reasonably foreseeable vulnerabilities from cyber-attacks or unauthorized intrusions, including false and spurious messages and malicious vehicle control commands, and protecting consumer privacy.

Subcommittees

- 11) Requires the Council to create subcommittees focused on each of the topics the Council is required to address, to gather public comment, and provide recommendations to the Council.

Public participation and transparency

- 12) Requires the Council to develop an Internet website to post information on AV policy, how the public can provide comments to the Council, and any policy considerations or recommendation or research needs developed by the Council.
- 13) Authorizes the Council to hold public meetings to promote public participating and input in furtherance of this chapter.

Sunset

- 14) Repeals the chapter creating the Council on January 1, 2035.

EXISTING LAW:

- 1) Authorizes the operation of AVs on public roads for testing purposes under certain circumstances specified in regulations adopted by DMV.
- 2) Defines “autonomous vehicle” to mean any vehicle with autonomous technology that has been integrated into that vehicle.”
- 3) Defines “autonomous technology” to mean technology that has the capability to drive a vehicle without the active physical control or monitoring by a human operator.
- 4) States that an AV 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.
- 5) Prohibits the operation of AVs on public roads for non-testing purposes unless the manufacturer of the vehicles submits an application to DMV that is approved pursuant to DMV regulations.
- 6) Requires DMV, by January 1, 2015, to adopt regulations setting forth requirements for the application to operate AVs on public roads for non-testing purposes.
- 7) Requires DMV to approve an application submitted by a manufacturer for the operation of AVs for non-testing purposes if DMV finds that the applicant has submitted all information and completed testing necessary to satisfy DMV that the AVs are safe to operate on public roads and the applicant has complied with all requirements specified in DMV regulations.
- 8) Authorizes DMV to impose additional requirements it deems necessary to ensure the safe operation of AVs if those vehicles are capable of operating without the presence of a driver inside the vehicle.
- 9) By January 1, 2021, requires CARB to adopt, and the CPUC to implement, annual targets and goals, beginning in 2023, for the reduction of per-passenger-mile GHG emissions of vehicles used by Transportation Network Company (TNC) drivers, including AVs.

FISCAL EFFECT: unknown

COMMENTS:

From 2000 to 2017, 620,709 individuals were killed in car collisions on American roads. According to the National Highway Traffic Safety Administration (NHTSA), 94% of all vehicle collisions are the result of human error. The advent of AVs that are capable of driving better than humans has the potential to save tens of thousands of lives a year, but only if the companies developing AV's can meet the incredibly difficult programming challenges ahead of them.

The programming challenge behind AVs is not one of intelligence, but one of perception. Vehicles need to be able to perceive unexpected, rare events. As noted in *Driverless: Intelligent Cars and the Road Ahead*, roboticists have given the name of the unexpected rare events that take one percent as corner cases. The more corner cases that exist, the more difficult it is to program artificial intelligence to react. Not only do cars need to be able to anticipate these corner cases, but they also need to be able to perceive various road signs and signals, including temporary ones established for changing conditions.

The difficulty of developing AVs has been a lack of computing power for a machine to properly have *machine vision*. In 2012, a major breakthrough occurred that has allowed for the development of AVs: *Deep learning*. Deep learning has made it so software can correctly classify random objects in thousands of digital images, granting the foundation for artificial perception.

In 2012, the Legislature passed SB 1298 (Padilla), Chapter 570, Statutes of 2012, which permitted AVs to be operated on public roads for testing purposes by a driver under certain conditions. In 2014, DMV released regulations to allow for the testing of AV's with a test driver, and in April 2018 DMV finalized regulations for the testing and deployment of AV's on public roads without a driver, with certain limitations. 58 companies currently have a testing permit with a driver, and eight companies have received a testing permit without a driver. One company has received a deployment permit.

Despite the potential for AVs to save thousands of lives, many Americans are skeptical about their safety. A Pew Research Poll found that nearly 60% of Americans say they would not want to ride in a driverless vehicle. Of those who do not want to ride in an AV, 7 of 10 mention a lack of trust, a fear of losing control, and/or general safety concerns.

The advent of AVs has the potential to radically change the landscape of how people get around and comes with a broad range of policy considerations this Legislature will have to consider. In 2018, OPR convened a multi-agency task force and published a set of principles it believed should be followed to ensure AVs are in alignment with the public interest of the State of California. These principles are largely reflected in this bill. These principles include:

- 1) Maximizing the deployment of shared-use vehicles as an alternative to personal car ownership;
- 2) Maximizing ride-sharing by encouraging pooling, prioritizing pooled vehicles' mobility and providing for shared-vehicle passenger safety and comfort;
- 3) Maximizing the deployment of AVs as low-emission vehicles in the near term and zero-emission in the long term;
- 4) Promoting use of vehicles that are sufficiently sized for the trip purpose;
- 5) Promoting multimodal transportation use;

- 6) Facilitating compact infill development rather than accelerating sprawl;
- 7) Prioritizing people rather than vehicles; and
- 8) Improving affordable access to destinations.

In 2019, the author of this bill authored SB 59, a bill nearly identical to this one which failed in Assembly Appropriations Committee. That bill initially focused on the environmental and land use impacts AVs may have and directed OPR to create a task force similar to the one that was already established that came up with the above principles. This Committee at the time, in consultation with the University of California, Institute of Transportation Studies, came up with a broader set of policy considerations that should be considered, and expanded the makeup of the Council to include state agencies that will be impacted by the advent of AVs. The amendments at the time reflected similar advisory councils that exist in Wisconsin, Michigan and Massachusetts.

This bill retains the amendments made by this Committee, but CalSTA instead of the CTC would be heading the Council. At the beginning of this year, CalSTA began forming an advisory committee to look at the impact of AVs and has put together draft principals to guide policy on AV development.

According to the author, “For the past century, our transportation system has been dominated by personally owned vehicles powered by the internal combustion engine. While these vehicles have brought many advantages – from greater individual autonomy to faster travel times – they have also caused many traffic deaths and too much urban congestion, smog, air pollution, and climate-changing emissions. The potential consumer benefits of AVs are immense: increased safety and mobility, reduced transportation costs, a more efficient road system. However, depending on how consumers use AVs, the technology could hinder greenhouse gas emission-reduction efforts, air quality improvement, and equity goals. Through increased vehicle travel, congestion, and sprawl, AVs could also significantly change the way cities look (and the way people and goods move) in ways we may not fully anticipate. SB 66 ensures that California supports the growth of AV technology while protecting the goals of creating a cleaner environment and healthier communities. The bill establishes the California Council on the Future of Transportation to ensure we are deliberately planning for the deployment of AVs. The bill also calls for a subgroup to pay particular attention to the state’s environmental, economic, equity, and land use goals.”

Committee comments: This bill will provide legislative guidance on what CalSTA should consider when forming the advisory committee, and include topics CalSTA may not be considering, including labor impacts and insurance implications.

The bill will further ensure CalSTA provides more transparency in the formation of this advisory committee, including a requirement that the Council create a website that includes existing AV regulations and state policy, how the public can provide comments to the Council, and any policy considerations or recommendations or data or research needs identified by the council. At this time CalSTA does not have a public website on the interagency work they are doing around AVs and it is unclear who CalSTA is consulting. There are no requirements for CalSTA to provide the Legislature with a report on their work. This bill will provide transparency to that work.

Related Legislation

SB 500 (Min) of 2021, requires certain AVs to be zero emission by 2030. SB 500 is pending before this committee.

SB 570 (Wieckowski) of 2021 amends various motor vehicle safety requirements preempted by federal law to exempt AVs from compliance if they do not operate with a human driver. SB 570 is pending before this committee.

AB 859 (Irwin, 2021) — among other things, limits the data a public agency may require a mobility services operator to provide the agency and includes AVs in the definition of “mobility devices.” AB 859 was held in Assembly Appropriations Committee.

Prior legislation:

SB 336 (Dodd) of 2019 would have required an on-board employee when public transit agencies deploy autonomous transit vehicles. That bill died in this committee.

SB 59 (Allen) of 2019 was nearly identical to this bill. That bill *was* held in the Assembly Appropriations Committee.

SB 936 (Allen) of 2018 would have required OPR to convene an Autonomous Vehicles Smart Planning Task Force. That bill was held in Senate Appropriations Committee.

SB 802 (Skinner) of 2017 required OPR to convene an Emerging Vehicle Advisory Study Group to review and advise the Legislature on policies pertaining to new types of motor vehicles operating in California, including AVs. That bill was held in the Assembly Committee on Appropriations.

REGISTERED SUPPORT / OPPOSITION:

Support

AARP
American Automobile Association of Northern California, Nevada & Utah
Association for Unmanned Vehicle Systems International
Auto Club of Southern California (AAA)
Automobile Club of Southern California
Elders Climate Action, Norcal and Socal Chapters
Plug in America
Silicon Valley Democratic Club
Union of Concerned Scientists

Opposition

None on file

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