MINUTES OF THE MEETING
OF THE
ASSEMBLY COMMITTEE ON GROWTH AND INFRASTRUCTURE

Eightieth Session
February 14, 2019

The Committee on Growth and Infrastructure was called to order by Chair Daniele Monroe-Moreno at 1:32 p.m. on Thursday, February 14, 2019, in Room 3143 of the Legislative Building, 401 South Carson Street, Carson City, Nevada. The meeting was videoconferenced to Room 4406 of the Grant Sawyer State Office Building, 555 East Washington Avenue, Las Vegas, Nevada. Copies of the minutes, including the Agenda (Exhibit A), the Attendance Roster (Exhibit B), and other substantive exhibits, are available and on file in the Research Library of the Legislative Counsel Bureau and on the Nevada Legislature's website at www.leg.state.nv.us/App/NELIS/REL/80th2019.

COMMITTEE MEMBERS PRESENT:

Assemblywoman Daniele Monroe-Moreno, Chair
Assemblyman Steve Yeager, Vice Chair
Assemblywoman Shea Backus
Assemblywoman Shannon Bilbray-Axelrod
Assemblyman Richard Carrillo
Assemblyman John Ellison
Assemblyman Glen Leavitt
Assemblywoman Rochelle T. Nguyen
Assemblyman Tom Roberts
Assemblyman Michael C. Sprinkle
Assemblyman Howard Watts
Assemblyman Jim Wheeler

COMMITTEE MEMBERS ABSENT:

None

GUEST LEGISLATORS PRESENT:

None

STAFF MEMBERS PRESENT:

Michelle L. Van Geel, Committee Policy Analyst
Jessica Dummer, Committee Counsel
Lori McCleary, Committee Secretary
Alejandra Medina, Committee Assistant

OTHERS PRESENT:

Paul J. Enos, Chief Executive Officer, Nevada Trucking Association
Blake Guinn, Nevada Director, The Western Way
Julie Butler, Director, Department of Motor Vehicles
Dawn Lietz, Administrator, Motor Carrier Division, Department of Motor Vehicles
Jude Hurin, Administrator, Division of Management Services and Programs, Department of Motor Vehicles
April Sanborn, DMV Services Manager III, Division of Management Services and Programs, Department of Motor Vehicles
Joe Verrengia, Global Director, Corporate Social Responsibility, Arrow Electronics, Inc.
Sam Schmidt, Private Citizen, Las Vegas, Nevada
Tina M. Frias, Airport Chief Administrative Officer, Director's Office, Clark County Department of Aviation, Las Vegas McCarran International Airport
John Fudenberg, Coroner, Government Affairs, Office of the Coroner/Medical Examiner, Clark County
Kelly Crompton, Government Affairs Manager, Office of Administrative Services, City of Las Vegas
Susan L. Fisher, representing Piaggio Fast Forward, Inc.
Jodi Stephens, representing Waymo LLC

Chair Monroe-Moreno:
[Roll was called. Committee rules and protocol were explained.] The first presentation is an overview of Nevada Trucking Association.

Paul J. Enos, Chief Executive Officer, Nevada Trucking Association:
The Nevada Trucking Association has been around since 1932. I am only the fourth chief executive officer of the organization since that time. The trucking industry is absolutely fascinating. To give you an idea of what happens to our economy when trucks stop, many facets of the economy shut down. We touch every single sector of the economy. We are extremely diverse. We are actually as diverse an industry as the customers that we serve. I put this graph up [page 3, (Exhibit C)] to give you an idea of what happens to manufacturing that could shut down in just a few hours because of the "just in time" nature of those deliveries. One to two days of fuel is stored at a gas station, all brought from the pipeline to the gas stations via truck. Grocery stores, trash pickup, and financial documents at banks have three days. Hospitals have seven to ten days of oxygen supply on hand. Of course the water we drink, even though we get it from a pipe, all the chemicals that make that water potable are delivered via truck. It is interesting on a day like today with Donner Pass maybe closing, as it did last weekend, it does seem to have an impact on all these different businesses. I have a brother-in-law who owns a donut shop and needed a mixer. The truck was delayed so the mixer did not come in because Donner Pass was closed. My cousin, who has a sushi burrito place, was searching all over town for cucumbers because there were no cucumbers coming over the hill from California. It is fascinating to see how it all comes together.

In the United States of America, 70.2 percent of our freight comes via truck [page 4], which is a substantial number. When we think of all the other modes of transportation—pipeline, trains, airplanes—trucks really are the mode that carries the lion's share of our freight.

This a fun graph [page 5]. I updated this just to give folks an idea. I get a daily number to show how many outbound packages or outbound trucks are going out. This represents truckload market. We kind of go up and down with the economy, so when we look at the graph, we see the red places, which is when the trucks are stopped, especially around the holidays. We saw a big bump in freight this summer largely because of the tariffs. Everyone was concerned about the tariffs going into effect, so we saw a huge front end of freight being moved before those tariffs potentially went into effect. Of course there is a bump around the Christmas season, after Christmas, and the new year.

This slide [page 6] shows 100 different markets in the country and what kind of impact freight has on those markets. Ontario, California, and Los Angeles, California, are huge outbound freight markets and are where Nevada gets a tremendous amount of freight. Interstate 15 (I-15) is the artery that supplies Las Vegas and is really that engine of our economy.

When we are moving all that freight, one of the things we are always very concerned about is safety [pages 7-10]. We are an industry that spends over $10 billion per year on safety. If the truck does not get there in a safe way, the load does not get there. We have customers with their names on the truck. If there is an accident, it is not just that the load does not get there, it could be their company, it could be their livelihood, it could be the life of a driver, or someone else on the road. Safety is something we take very seriously. We do have great partners, both on a federal level with the Federal Motor Carrier Safety Administration and the State of Nevada with the Nevada Highway Patrol of the Department of Public Safety, that we work with hand in hand to make sure our trucks are operating in a safe way, that we all understand what the rules are, and trying to get a level playing field.

We are a very transparent industry [pages 11-12, (Exhibit C)]. Anyone can go online and look at any trucking company in the country to see what their safety record is. They call these the seven basic categories: unsafe driving, crash indicator, hours-of-service compliance, controlled substances, et cetera. We have not just members of the public, but insurance companies, shippers, and law enforcement that are constantly looking at this data. It is very involved and very transparent to the point where they can look at every single inspection and every single ticket that every trucking company has received. This information is available to the public. It is also available to law enforcement in a more robust manner. We know who the safe actors are and who are not.

How are we doing in Nevada [page 13]? The big square on the left represents the largest area of vehicle violations, which is vehicle maintenance. The No. 1 issue we have with vehicle maintenance is lights. It is not an out-of-service violation usually, but that is

why we see such a large portion there. Unsafe driving is smaller. In the lower right-hand corner in red is controlled substances. There were only 74 controlled substances violations in the trucking industry last year.

Where do we get those violations [pages 14-16]? We get them on the roadside. When someone pulls a driver over, he may get a violation or a clean inspection. In Nevada when drivers are pulled over, 55 percent of the time it is likely going to be a clean inspection versus a violation. That demonstrates the great partnership we have with the Nevada Highway Patrol, the local governments, and folks on the road who are looking at what we are doing. When a driver gets a clean inspection, it means a better score. Eighty-one percent of those violations occur on the road. That is different than in a place like California where they bring the trucks in, do a fixed check site, and want to do an examination on every truck. Why is that important? Because it is 4.5 times more likely to prevent an accident with roadside enforcement by looking to see if drivers are changing lanes unsafely, speeding, or on a cell phone. Our Nevada Highway Patrol does a phenomenal job of making sure the trucks on the road are operating in a safe manner. Nevada is one of the best states in the country in terms of commercial enforcement.

How does the trucking industry in Nevada stack up [pages 17-18]? Throughout the country, 70 percent of the freight is being moved by truck. In Nevada, it is 92 percent. Why? We do not have the Mississippi River, seaports, or substantial rail service, so this state is tremendously dependent on trucks.

The numbers on this graph [page 19] change every day. It shows the inbound and outbound freight in our state. These numbers are from our truckload carries from last night, just to give you an idea of the volume of freight that comes in. Comparing these numbers nationally, this is about 1 percent of the combined total freight in the country. However, it is interesting to see in terms of inbound, which is on the right side, that Reno and Las Vegas are fairly similar. For a market that has a tremendously larger population in the south, we do see that same amount of inbound freight coming in to the Las Vegas market as we do in the Reno market. Reno is always bigger in the outbound freight because we have the warehousing industry and distribution centers. That may change a little bit, as we will see later in the presentation.

We are dominated by small businesses [pages 20-27, (Exhibit C)]. This is an industry where no one company—and we have big companies like FedEx Corporation, UPS, Old Dominion Freight Line, Inc.—has more than 1 percent of the market share. We are absolutely dominated by small businesses. There are 3,320 small businesses located in Nevada. There are 51,310 folks employed by the trucking industry, which is 1 in 22 jobs. Why are they here? In Nevada, we do things a little differently. Why do we have these big companies with bases in Nevada? Nationally, 80,000 pounds can be hauled on the national network. States can do things a little differently. In Nevada, we do allow for 129,000 pounds, and we do allow for different configurations, which is more environmentally friendly. It means we are using less fuel to move more freight. It is more productive. It means we have less accident exposure. We can move a lot more freight with one truck carrying two trailers.

This truck [page 23] is called a Rocky Mountain double, which is a bigger trailer on the front and a smaller trailer on the back. This truck [page 24] is a turnpike double, and this one [page 25] is triple trailers. People say these are big trucks and do more damage to the roads. Really, it is all about axle weight and how the weight is distributed. I liken it to getting your foot stepped on with a high heel shoe [page 26] as opposed to that guy [page 27] in tennis shoes. It is how the weight is distributed across the axles, so there is no damage to the road. A properly loaded truck on a properly built road is not going to do any more damage than cars.

What are some of the challenges we have today [pages 28-30]? Capacity is a huge issue for us. Nationwide, we are currently 51,000 drivers short. With a state as dependent on the trucking industry as Nevada and a country as dependent as we are on truckers who move all this freight, that is a huge number. It is a challenge that we are trying to address for recruitment. I have had so many companies this last year who indicated they are raising the wages for both drivers and mechanics. We have seen increases for drivers of 17 percent, 20 percent, and 25 percent in the last few years to recruit and retain those truck drivers into our industry. We are an aging industry [page 31]. The average age of a truck driver is 50 years old. The drivers are older than construction workers, regular business, or the economy in general.

Congestion is a huge problem for us [pages 32-33]. This data was just released earlier this week. It is an issue across the country. Nevada does not have one of the top ten freight bottlenecks in the country, but we have the forty-first-biggest freight bottleneck in the country on I-15 at 5:15 p.m. We all know Project Neon is going on in Las Vegas, which is likely the cause of that bottleneck. We hope it will improve once that project is finished.

Detention time with drivers having to wait to be loaded and unloaded is a big issue [pages 34-36]. It changes from market to market. If you look at the graph [page 35], Fresno, California, is one of the worst places to have to wait to get a truck loaded or unloaded. To give you some context, a driver in Fresno, which is the top line [page 36], waits an average of five and a half hours to be loaded or unloaded. That is a crazy amount of time. Reno and Las Vegas are akin with what is happening on a national level, but we are waiting over 2 hours and 20 minutes to be loaded or unloaded. Cedar Rapids, Iowa, does a much better job, with a detention time of 45 minutes.

Why is that important [pages 37-39]? Every single truck driver is required to follow the Hours-of-Service rules from the Federal Motor Carrier Safety Administration of the U.S. Department of Transportation. A driver can only drive for 11 hours total. A 30-minute rest break must be taken at some time in the first 8 hours, and a driver can only drive 14 hours on duty. Being detained in traffic or being detained while waiting to be loaded or unloaded is a huge problem. It is all kept track of with an electronic logging device that is connected to the truck. It makes sure our drivers are compliant. This went into effect in December 2017 by law and started being enforced in April 2018. It has had an impact on things like truck parking. Drivers no longer have a paper logbook that can be fudged a little bit. They know there is a computer tied to the engine. Trying to find a place to park is an

issue. I have been on the phone quite a lot over the last few years with former county commissioner, Susan Brager, and with the new chair of the Clark County Commission, Marilyn Kirkpatrick, saying we need to do something about truck parking. We are also working with the Nevada Department of Transportation (NDOT) on the issue, and we have a truck parking study in progress. We are trying to come up with some solutions. We have some solutions this session that we may move forward with.

How did we get here [pages 40-52]? There was a 20-mule team that used to move borax. In places like New York City, there were 100,000 to 200,000 horses moving freight all around the city. That brought a tremendous amount of disease. There were 20,000 people dying each year of diseases related to manure and dead horses in the streets. This is a picture of Bleecker Street in New York City at the turn of the century [page 45]. Trucks were really seen as a technology that would improve the health of people living in the city. We have come a long way by adopting the new technology at that time to improve freight movement. Rudolf Diesel [page 47] designed and developed the diesel engine, which still moves freight on the road and maritime freight and has eliminated some of those maladies we had. Even though it was developed over a century ago, it is still the main mechanism for how we move things across this world in this economy.

In 1919 Dwight D. Eisenhower was a lieutenant colonel. He was charged with moving men, munitions, tanks, and trucks across the country from Washington, D.C., to the Presidio of San Francisco. It took 69 days. That did put a bug in his head, and I will get to that in a moment. However, 1919 was a big deal for the trucking industry in terms of what it inspired.

In 1935 we were regulated by the Interstate Commerce Commission [pages 53-56]. That meant, in order to have a trucking company, people would have to go to the federal government and state government to get permission on what could be hauled, how much could be charged, where the trucks could go, and what roads the trucks could use. We were an extremely regulated industry from 1935 onwards. This is a picture of an old regulated magnesium truck [page 55] hauling for World War II.

This is a picture of General Eisenhower [page 58]. Going through what he did when he was a lieutenant in 1919 during World War I, after World War II, he had the vision of establishing an interstate highway system. The interstate highway system, more than anything, is what has made the trucking industry what it is today, which is why it is named after Eisenhower. At that time, it was paid for by a 6 cent tax on fuel. In the trucking industry, we love fuel taxes because for every gallon we purchase, 97 cents goes back to the roads. It is an extremely efficient tax and one of the best ways to pay for our roads and infrastructure [page 61].

We know we have potential challenges with things like electric vehicles. This is a picture of the Tesla truck [pages 62-63]. This is something we are working on. Once again, we may be working on it this session. When I talked about diesel fuel, why do we still use diesel? Because it is the most energy-dense fuel we have. One gallon of diesel fuel has the same

amount of energy as 40.3 kilowatt-hours. That is an amazing statistic when you think about it. We power those electric trucks with lithium, and we use things like cobalt. In this country, we only have one active lithium mine. We are working on another here in the Silver State. That lithium mine at Silver Peak actually existed not just for medicine for folks who may have needed help with mental health, but it was also in 7UP [page 65]. That is why when we were kids, our mothers had us drink a 7UP when we were not feeling well. There has not been lithium in 7UP since 1950. Lithium is what we are now using to power our new mobility.

The golden age of trucking really happened with the implementation of the interstate highway system. With Jimmy Hoffa and the Teamsters Union, we were a very union-heavy industry for a long time [pages 66-71]. There are still a lot of union companies. It is a little different now after deregulation, which we will talk about in a moment. It also created a citizens band (CB) radio culture, getting on the radio and using CB handles. When I was a kid, two of my favorite movies were *Any Which Way But Loose* with Clint Eastwood, and *Smokey and the Bandit* with Burt Reynolds, which is part of the trucker lore.

Then, the golden age of trucking was disrupted with deregulation [pages 72-76]. Just to the left of President Carter [page 73] is former Senator Howard Cannon, who was chair of the Commerce Committee. They deregulated the trucking company and said no more do companies have to go to the federal or state government for permission on what can be hauled or how much can be charged. We saw an explosion. Because of that, we saw a lot of nonunion companies come in. We also saw a lot of trucking companies' profit margins get cut tremendously. The industry became very cutthroat. Today the average profit margin for our industry is about 1.75 percent. But what did it ultimately do to those end consumers? This is a picture of Rouge River in Michigan [page 75] where they built Ford automobiles. It was the largest manufacturing plant at one time, being a mile and a half long. It was so expensive to get raw materials there because it was so expensive to get a truck to go there. They needed metal, rubber, glass, and everything else to make a car. Before deregulation, it was said the average cost of a product was about 25 percent tied up in transportation. Today it is 3 percent. As a kid growing up in Elko, Nevada, I used to go to J.C. Penney. If they did not have the size of Levi's I needed on the floor, they would check the backroom. Today, because of "just in time" delivery, that backroom is now on the back of a truck.

So, what happened? That meant companies like Pacific Intermountain Express Company (P.I.E.) [pages 78-81], which my grandfather used to drive for, was very regulated and very costly, so they went away. They were replaced with companies like ITS Logistics, built here in northern Nevada and started with one truck and three guys, all with pregnant wives. It was started using a credit card and was built into a company with 500 employees. It is akin to what we have seen happen in other industries, like the taxicabs with Uber Technologies, Inc., or Tower Records with Pandora Media, Inc., or Blockbuster, LLC with Netflix, Inc.

We have experienced that disruption a little bit in our industry. We are seeing some of that happen today, and we are seeing it happen with technology, automation, and connected vehicles [pages 82-85, (Exhibit C)]. I like to think of this in a positive way. How are we

going to be able to make our roads safer? How are we going to be able to make the job of a truck driver more attractive to young people? I really think it is through the implementation of this technology that creates those safety cushions. We are looking at things like drone technology for those last mile deliveries from trucks.

I love this truck. This is the Freightliner Inspiration Truck [pages 86-87], which is the first autonomous truck driven in the United States of America, plated in the great state of Nevada. Thank you to our folks at the Department of Motor Vehicles (DMV). You can see the truck driver holding his iPad and not driving the truck as it is going down the road.

People ask if this is going to be the end of a truck driver. For the last 50 years, pilots have been getting in planes that can take off, fly, and land themselves with autopilot [pages 88-94]. I think we are going to see the future of the truck driver be more akin to what we are seeing with pilots. The beautiful thing about this kind of technology is, we can save the same number of people who die on the road every year with the ubiquitous rollout of automated technology as the number of people who die of breast cancer. That is substantial when you consider it. Every October boxes of Cheerios, shoelaces, National Football League cleats, everything is pink. The same number of people die on our roads every year. This kind of technology can enhance and develop that safety. Of course there are tradeoffs. There are things like fewer people donating organs or perhaps people not buying vehicles anymore. That is a potential issue with automated vehicles. People may not need to buy a car anymore. We already see that in some cases. Potentially, people may not park a car in their garage or even have a garage. There are many new homes that are only being built with a one-car garage because of the new mobility people are moving forward with. That also means parking. We may not have the parking fees that supplement city services. Drunk driving could potentially go away, along with the associated court fees. I remember getting into an Uber in Napa Valley six months after they started business. People were saying there had been 30 percent fewer DUIs and the courts do not know how they are going to fund themselves. There are challenges and tradeoffs with the adoption of this technology.

Another thing that has changed in our industry is e-commerce [pages 95-99, (Exhibit C)]. It is changing how we do things and where our trucks go. We look at the traditional retail model where there was a truck going to a warehouse or going to a store. Today we have a much more complicated model where we now have trucks going directly to homes or a distribution center in a neighborhood, like the Walmart pick-ups. We are seeing a change. What does that mean to our industry? In the last decade, we have seen a reduction of miles that we traveled on rural roads by 2.2 percent. We have seen an increase on an urban level of 17 percent of miles traveled by truck. It is changing how we do things. It is very interesting to see how these different things change our industry.

I talked about distribution centers and relating Reno to Las Vegas. This study [page 100] just came out a couple of weeks ago. It shows Las Vegas as one of the emerging distribution hubs with over 26 million people within 250 miles. We could see Las Vegas getting more outbound freight like we see Reno today because of that changing model.

Another thing we look at is we move a tremendous number of trucks to feed ourselves [pages 101-107]. They say 20 to 25 percent of truck traffic is agriculture. We are moving it from farms, usually in the Midwest—turkeys from Missouri, corn and soybeans from Iowa. We are now seeing pods being developed in urban areas where fruits and vegetables will be within 50 miles of where they are eaten. We will not be sending bell peppers from the Central Valley to New York City anymore. They may be being grown in Brooklyn. That is something that is going to change our industry. We may not have those big trucks hauling pigs or cows all the way across the country anymore because of things like lab-created meat. These are things that have a potential to disrupt our industry: automation, Amazon.com, Inc., agriculture. A man named Craig Fuller calls them the three A's. He is the man who developed it, so I want to give him credit so he does not think I am stealing it from him. These are things that are going to change our industry.

Ultimately, trucks are still going to be here. It is going to be different and it is going to change, just like our consumer habits change. I like to say motion and purpose are a truck's greatest virtues. They are moving something and doing it for a reason. We do not move anything on spec; we are moving it so ultimately all of us can benefit from those things the trucks are moving.

Madam Chair, hopefully that was not too long or boring.

Chair Monroe-Moreno:
I would not say it was too long, and you did get through it faster than I thought you would, so I appreciate that. Are there any questions from the Committee?

Assemblyman Carrillo:
You mentioned the shortage of truck drivers. Are you reaching out to the younger generation?

Paul Enos:
One of the issues we do have in our industry is, we cannot get kids right out of high school like construction can because to move interstate freight, a driver has to be 21 years old. We lose a lot of folks there. We have been trying to get folks who are coming out of the military who already have that military commercial driver's license. We made it easier for those folks in Nevada a couple of years ago. They did not have to get a truck to take the test, they just had to pass the written test. We are also looking at folks who are looking for a second career to see the world. My wife's cousins, after they retired, both decided to go to work for a trucking company driving together, leaving Minnesota for the first time in their lives to see the country. It is definitely a challenge trying to find those folks. I think it is a challenge for every industry today, but those are some of the things we are doing. I am hopeful the technology we are deploying in our trucks is going to help bridge that gap and make it a little easier to recruit the new generation.

It is funny; the new generation is different. They want to know how they are doing. They love the metrics that are in trucks. They love to see how they are doing every day: are they hard braking, how is their fuel use, are they on time, and how can they get better. Having that data is also great to attract the younger generation to our industry.

Assemblyman Yeager:
I would like to discuss the graph you showed about how long it takes to load the trucks [page 36, (Exhibit C)] and Fresno being above and beyond what we are. What accounts for that in Fresno? I want to make sure we do not end up in a situation like that.

Paul Enos:
I do not know at this point. This is brand-new data. I am wondering if it is agriculture. I do not know what is driving that issue. I would anticipate places like the oil fields in North Dakota having a much longer detention time. That is something I am trying to determine for us. We have that issue everywhere. There are big companies that say if the truck is not within a 15-minute window, they will charge the customer $500 for making them wait. Unfortunately for the trucking industry, being as small as we are, we do not have that kind of power dealing with shippers. I am hopeful that that kind of data, showing where we are being detained, is going to help make some policy changes. One of the things I would love to see in the electronic logging device is detention time. I think transparency helps fix the issues. Just like transparency enhances safety, if we had transparency of where and why it is taking so long for that truck to be loaded or unloaded, I am hopeful that that is a problem that is going to improve itself.

Assemblyman Ellison:
I have heard that since they have put these electronic devices in the trucks, when they get to the weigh stations, the loads can be read on the devices and that helps push them through instead of delaying them in long lines. Is that true?

Paul Enos:
There are a number of technologies. There is "weigh in motion," which is installed on the freeways so law enforcement can see how much that truck weighs. There are things like the electronic logging device that communicates directly with law enforcement devices in their vehicles so law enforcement knows if that driver is over his hours or not. There is also something called "pre-pass." A company submits to a rigorous overview of safety records and their fleet. There is a transponder in the truck and if the company is one of those good companies, the truck gets waved through. If not, the truck will get pulled in. Those are some of the technologies law enforcement is using to make sure they are concentrating and focusing on those who are likely to cause accidents.

Assemblyman Ellison:
Is there a way to put that on all the trucks? I see a lot of trucks that are tied up for hours. I do not know if it is because of the inspection of the trucks or if it is because of something else. I have noticed livestock trucks are being pulled over more often.

Paul Enos:
In Elko, if someone is pulled over for a couple of hours, it is probably because there is an issue. One of the great things about Elko County is, in terms of getting a clean inspection, it has the best numbers by far in the state. I believe they gave over 6,300 clean inspections to trucks. Law enforcement is making sure the folks who are operating on the road are doing it safely. In Elko, the Nevada Highway Patrol has every single officer trained in commercial enforcement. We do see a lot of trucks in Elko County being pulled over, but when you look at the safety aspect and those folks being pulled over, I do not see it as much of an issue. I actually see it as more of a benefit to our industry with having that oversight and those folks getting that good rating.

Assemblyman Watts:
You mentioned that of those inspections, 55 percent are clean [page 14, (Exhibit C)]. Does that mean the other 45 percent have a violation? It looks like about half of those are related to maintenance.

Paul Enos:
That is correct. When you look at the lion's share of those violations, they are light. It is not an out-of-service violation. An out-of-service or red flag violation means the officer is not going to allow that truck to move until the problem is fixed.

Assemblyman Leavitt:
The workforce issue you have is a little disheartening. Are you looking at some alternatives? For the young kids coming out of high school in work programs, trucking could be one. I understand the age limit, especially if they are transporting something they are not legally able to have in their possession. That might be an issue. However, in the age of autonomy, perhaps that regulation could be reduced. Perhaps there could be mentorships or programs where they could drive with a driver who is eligible to drive for a couple of years until they reach the appropriate age.

Paul Enos:
We are actually working on something called the "DRIVE-Safe Act," which is in Congress right now. I think it requires 450 hours with a driver and specific technology in the vehicle. We tried it last time in Congress, but it did not move forward. It is something we are trying to establish on a federal level. We tried to get a pilot program several years ago to allow individuals 18-21 years old to drive. One of the issues we have is insurance. As you know, most of our trucking companies are small, so they are not self-insured. An insurance company will require the drivers to be 23 years old in some cases, but usually 25 years old. I have only heard of one driver between the age of 19 and 21 who an insurance company has allowed to drive. He is not driving the interstate, but is driving from Sparks to Lovelock every day. They are watching everything he does and, so far, no issues. There is not just the law challenge, there is the challenge with insurance companies and making sure that is not a risk. It is something we want to see move forward. I am hopeful, but also pessimistic.

Assemblywoman Bilbray-Axelrod:
My question is about how truckers are paid. I see trucks speeding down the freeway in southern Nevada and in the north. I am under the assumption they are paid by the mile and not by the hour. In your opinion, would that not just encourage them to get to their venue quicker because they could then take another load and get paid more?

Paul Enos:
Truckers are paid differently. There are some who are paid by the mile. We are seeing more companies today moving to an hourly rate. Per-mile used to be how companies paid their drivers. The drivers love that because they are getting paid more money. Most of our trucks are governed. Big companies usually govern their trucks at a top speed of 65 miles per hour. A company a couple of years ago decreased it to 62 miles per hour and they saved $2 million a day in fuel by governing that truck to a lower speed. I wish I could give you a better answer, but drivers are paid in a diverse amount of ways, some hourly and some by the mile. It could be an owner-operator who has negotiated with the shipper what that load is going to be.

Assemblywoman Bilbray-Axelrod:
You used the term "most" of our trucks are governed. What does "most" mean?

Paul Enos:
I do not have the data to answer that question. Let me see if I can get you a more definitive number. Many insurance companies do require the trucks be governed before they will insure.

Chair Monroe-Moreno:
Thank you for your presentation, Mr. Enos. If you could please get the information asked for by Assemblywoman Bilbray-Axelrod to the entire Committee.

Paul Enos:
I will see what valid information I can find and get back with you.

Chair Monroe-Moreno:
I will invite our next presenters to the table.

Blake Guinn, Nevada Director, The Western Way:
Renewable energy generation facilities are important to the economic base of communities across Nevada, many of which are located in rural areas of the state. Rural energy capacity has grown rapidly in Nevada, particularly from non-hydroelectric renewable sources, such as solar, geothermal, and wind. Since 2000, net electricity generation from non-hydroelectric sources in the state have increased from 3.9 percent to a total net generation of 17.3 percent in 2016.

The intent of our study is to estimate the economic and fiscal benefits to Nevada of the construction and operations of utility-scale solar, geothermal, and wind generation facilities that are located in rural areas of the state. In addition to the statewide analysis, this study includes two case studies estimating the potential benefits a renewable facility could have in rural counties, again demonstrating the potential benefits that will be realized in similar counties throughout the state.

We recently partnered with the Carson Valley Chamber of Commerce for our economic study. The Western Way is a nonprofit organization focused on delivering free market solutions to energy and environmental challenges that are currently facing the Western United States [page 2, (Exhibit D)]. The Western Way works with local, state, and federal elected officials and community leaders to highlight real issues that are impacting the West and driving policy changes which benefit not only the environment, but also our economy.

We believe rural regions of the West are often overlooked by national and state energy policies that typically only focus on solutions which benefit U.S. urban centers [page 3]. Because of that, we recently commissioned this economic impact study on rural renewables to drive the conversation on energy policies that advance local economies by maximizing energy development in our rural communities. We also believe in "All of the Above" energy policies that enable rural communities to continue to capitalize on traditional energy resources while also advancing market-competitive new energy solutions in rural areas across the Western United States.

The reason we did this study was essentially because of Question 3 [Energy Choice Initiative, 2018 election]. Whether it passed or failed, we would conduct this study. Rural Nevada is where you will find the land to build these renewable facilities. With the failure of Question 3, NV Energy and the Public Utilities Commission of Nevada (PUC) have agreed to build six new renewable energy power plants: three in northern Nevada and three in southern Nevada. We are looking to help bring both sides to bipartisan energy bills. We believe not only are renewables great for the environment, but one thing we have not looked at are the economic impacts. That is the purpose of the study.

We use the Jobs and Economic Development Impacts (JEDI) models [page 4]. We also use the Regional Input-Output Modeling System. Our development team utilized several sources of data for this study, including the State of Nevada; Lazard Asset Management; the National Renewable Energy Laboratory, Office of Energy Efficiency and Renewable Energy of the U.S. Department of Energy; the U.S. Census Bureau of the U.S. Department of Commerce; the U.S. Bureau of Labor Statistics of the U.S. Department of Labor; and the U.S. Energy Information Administration.

The intent of this study is to estimate the economic and fiscal benefits for Nevada for the construction and operations of utility-scale solar, geothermal, and wind facilities that will be located in rural parts of Nevada [page 5]. In addition to the statewide analysis, we included two case studies estimating the potential benefits a renewable facility could have in rural counties.

Currently, and since 2006, we have 29 renewable facilities located throughout the state [page 6, (Exhibit D)]. Looking at just construction and investment, $7.2 billion has been added to the Nevada economy from 2006 to 2017 [page 7]. If we start breaking down that cost, we can take a look at the major equipment; construction materials; designs, engineering, planning, and other costs; wages and salaries, employee benefits; and full-time construction employees.

The total direct and indirect benefits of these renewable facilities and the construction was estimated at $7.9 billion in total output [page 8]. If we break that down, it equals $4.3 billion in direct output and $3.6 billion indirect and induced output.

In total, the direct economic and fiscal benefits of construction and investment in rural renewable energy projects in Nevada was estimated at $4.3 billion [page 9]. This includes construction costs and the sales and use tax, the General Fund, local school support, and the city/county relief, which is at $152 million. That is what those renewable plants have added to our economy.

In 2018 the total direct economic and fiscal benefits of annual operations for renewable energy projects will be estimated at $128.4 million [page 10]. That is including all the construction, labor, salaries, and tax revenues that go to those counties.

Our first case study was a 75-megawatt geothermal plant located in Lyon County [page 11]. The facility investment was $225 million with a construction activity impact just under $15 million. The full-time construction employment was around 250 jobs. The direct and indirect benefits annually is just under $9 million. The annual benefit to these counties is over $323,000.

The construction materials are short term [page 12]. Once the facility is built, there are no more construction costs, so those full-time jobs do go away. The benefit of renewable facilities is they cost less to build, operate, and maintain. Theoretically, if the PUC does its job, those savings should filter back to the ratepayers and equals more money into the counties' pockets. In Lyon County, the property tax was over $290,000. With the sales and use tax, the total fiscal benefit to the county is over $323,000 annually.

The second case study is a 100-megawatt solar facility located in southern Nevada [page 13]. The solar facility was an investment of close to $250 million and is located in Nye County. The construction impact was $2.5 million. Solar facilities are some of the least expensive facilities to build. Full-time construction employment is 335 employees. Total indirect and direct benefits are $1.9 million annually. To Nye County, we estimated it would be just

under $500,000. The major equipment; construction materials; design, engineering, planning and other costs; wages and salaries; and employee benefits are just over $248 million. To build the facility it is 335 direct and indirect full-time jobs for the community. The direct economic benefits are $1.13 million, which includes wages and salaries, benefits, material, and equipment. The property tax is just under $500,000. The total benefits for the county will be $490,000 annually [page 14].

What are we looking to do with this study [page 15]? We want to encourage and clear red tape for rural electric cooperatives as well as NV Energy to start building this infrastructure. We also want to streamline the siting and permitting process. There are abandoned mines in northern Nevada that tend to have infrastructure built into them. They are not zoned for residential homes. They are out of sight, out of mind for the residents in these counties. We want to be able to cut that red tape to make sure these facilities can be built in those areas. We also want to incentivize landowners. As we know, a lot of the land in Nevada is owned by the federal government. Much of the land either NV Energy or the cooperatives are going to be trying to look at to purchase or lease will be from resident landowners. We also want to replicate the state's Bureau of Land Management, U.S. Department of the Interior model of solar energy zones. Those are areas that are designed to be well-suited for utility-scale solar. We also want to allow for enterprise zones. Those are tax credits designed to promote a business-friendly environment in economically distressed areas throughout the state. We also want to apply those tax credits to renewable energy investments. We want to position the rural west, specifically Nevada, as the easy choice for renewable energy investments.

The whole purpose of this presentation is to give you a different aspect of renewables. Not only are they great for the environment with less pollution, but it is also a huge economic driver, specifically in Nevada. I will take any questions the Committee may have. [Submitted but not discussed is (Exhibit E).]

Assemblywoman Monroe-Moreno:
Are there any questions from the Committee?

Assemblyman Ellison:
You talked about two plants you are looking at. One is solar. What is the other?

Blake Guinn:
It is a geothermal plant.

Assemblyman Ellison:
Where is that going to be?

Blake Guinn:
We picked Lyon County for that facility.

Assemblyman Ellison:
There are two large facilities in that area now. Is that correct?

Blake Guinn:
Correct.

Assemblyman Ellison:
How long will it take to get these plants running?

Blake Guinn:
We were estimating economic costs on that facility. I am not sure who will be building the facility. I do not have that answer, but I can try to get that information for you.

Assemblyman Ellison:
I did not know if they were in the planning and engineering stage to see if it is actually feasible, or if they have made a commitment to go forward.

Blake Guinn:
As far as we know, the PUC has approved the six new renewable power plants. We are in the early stage of what those plants will look like. I would imagine in southern Nevada they will tend to be solar. Geothermal is a large energy commodity in northern Nevada. I think they will try to break that through. We want to see rural counties have the benefit of these facilities because $300,000 to $500,000 annually to these rural counties is a huge chunk of money to them. They would be able to raise the salaries for teachers or enhance infrastructure without touching the constituent taxes.

Assemblywoman Monroe-Moreno:
On the second case study [page 13, (Exhibit D)], how many employees did you say that facility would be employing? Do you already have the manpower in place, or would we have to look elsewhere in the state to bring manpower for the jobs? What would the average salary be for those employees?

Blake Guinn:
To initially build a facility, we estimate it would be around 335 full-time construction employees. I do not know if we have the employee base currently, but I know NV Energy is involved heavily with the union, so I am sure they would be union jobs. I do not know how far they extend into the northern region. I know we probably have plenty of people in southern Nevada. Once the facility is built, the benefit of these renewable facilities—wind, geothermal, and solar—is that they do not need the manpower needed to run a coal plant or a natural gas plant. Our full-time employees moving forward for this is estimated at nine employees. The employee salaries would be $40,000 to $70,000 per year. I am not sure what the unions are charging these days.

Chair Monroe-Moreno:
Are there any further questions from the Committee? [There were none.] Thank you for your presentation. Our next presentation is an overview of the Department of Motor Vehicles (DMV).

[Vice Chair Yeager assumed the Chair.]

Julie Butler, Director, Department of Motor Vehicles:
With me at the table today is Alex Walden, Public Information Officer, Department of Motor Vehicles. I would like to thank you for the opportunity to be here today to present an overview of the Department of Motor Vehicles. I would also like to give a shout out to my staff, several of whom are with me in the audience today and who prepared the information I will present to you today.

The Department of Motor Vehicles comprises seven operational divisions under the authority of the director's office [page 3, (Exhibit F)]. The Department's mission is to deliver efficient, innovative, and diverse services providing for the identification, licensure, and protection of all we serve. There are 18 field offices throughout the state and 1,269 full-time equivalent employees, making it one of the largest Executive Branch agencies in state government.

When people think of the DMV, they probably think strictly of driver's licenses and registrations. However, the Department does much more than that. Starting at the top of the diagram and working clockwise, I will give you a brief overview of each Division.

The director's office establishes policy for the Department and directs and controls its operations. Department policies and procedures, information security, public information officers, human resources, and training fall under the responsibility of the director's office.

The Administrative Service Division provides support services to the director's office and all divisions of the Department to include fiscal accounting; budgeting; internal and external auditing; travel arrangements; payroll; warehousing; inventory control; mail services; purchasing and contracting; facilities management; telecommunication support; and revenue collection, distribution, and recovery services.

The Division of Compliance Enforcement is the regulatory arm of the Department. The Division provides consumer protection through the licensing and regulation of businesses related to the manufacture, transport, sale, and disposal of vehicles. It has a fraud investigation unit and also investigates all complex and criminal complaints filed against licensees. Additionally, the Division plays a part in evaluating Nevada's air quality by licensing and regulating emission stations and emission inspectors, and regulating the emissions of heavy-duty diesel trucks.

The Division of Field Services is the customer-facing arm of the Department for driver licensing and vehicle registration services. The Division also registers and titles vehicles and collects appropriate fees and taxes imposed upon the owners and operators of vehicles.

The Division of Central Services and Records works behind the scenes to ensure the accuracy of the Department's records and statistical reports. Programs under the Central Services Division include registration transactions, vehicle titles, driver's license sanctions, and the license plate factory, to name just a few.

The Motor Vehicle Information Technology Division, or Move It, as it is known internally, supports the Department's information technology needs and works with the various divisions to explore and implement information technology (IT) solutions as part of the Department's mission to provide efficient, innovative, and diverse services.

The Motor Carrier Division ensures proper collection and distribution of Nevada fuel tax revenues throughout Nevada cities, counties, and at the state level.

Finally, the Division of Management Services and Programs provides support for the other DMV divisions in the areas of research, coordination of regulatory and statutory changes, and legislative interaction.

The revenue collected by the DMV, over $1.5 billion in fiscal year (FY) 2018, funds services at various levels of Nevada government, with approximately 39 percent of revenue collections being distributed to counties and school districts, and approximately 37 percent of the revenue being directed to the Highway Fund to fund the administration, construction, improvement, and maintenance of Nevada's highways [page 4, (Exhibit F)].

These charts [page 5] show the projected revenue sources for the Department for the upcoming biennium. As you can see, Highway Funds and fees provide the majority of the funding for the Department's operations.

The information on this slide [page 6] is self-explanatory and provides a snapshot of the Department's workload. When you consider that the entire population of the state of Nevada is estimated at around 3 million people, that means approximately 80 percent of the state's population has a driver's license or identification card issued by the DMV. The numbers grow daily. This positions the DMV to be the No. 1 customer-facing agency in state government.

The Automatic Voter Registration Initiative [Question 5] approved by voters in 2018 requires the DMV to automatically register Nevada citizens for voting and to transmit this information electronically to the Office of the Secretary of State and the county clerks [page 7]. The system established that the Secretary of State, DMV, and each county clerk, pursuant to this measure, must allow for voter registration information collected by the DMV to be transmitted electronically to the Secretary of State and the county clerks for the purpose of registering the person to vote or for updating voter registration information of the person for the purpose of correcting the statewide voter registration list. The DMV is working cooperatively with the Secretary of State, the county clerks, the Governor's Office, and representatives from the Department of Administration, Division of Enterprise Information Technology Services to establish a governance structure in the form of executive, steering,

and working groups that will be responsible for creating this automatic voter registration system that complies with Question 5's requirements. The steering committee and working groups have recently met to discuss the scope of the effort, establish a governance structure, and agree upon the processes and changes needed by each party to implement Question 5. In addition, the Department has created an internal committee to ensure successful implementation.

The Department was recently approved for $84,000 in General Fund contingency funds to hire a contract programmer for the period of February 1 through June 30, 2019, to learn the Department's IT environment and get a jump-start on the anticipated changes that are needed to transmit the required information to the Secretary of State and the county clerks. For those of you on the money committees, we have requested funding in FY 20 through a one-shot appropriation for the upcoming biennium in the amount of $87,000 for contract programming. Additional funding for anticipated increased postage to comply with the automatic voter registration has been requested for the Central Services Division's budget.

Some of the bills you might see during this session [pages 8-10, (Exhibit F)] include six housekeeping bills dealing with several issues. Assembly Bill 23 would create a new chapter within *Nevada Revised Statutes* to allow the Department to create regulations for new automotive technologies besides autonomous vehicles. Assembly Bill 24 is a clean-up bill dealing with surety bonds. Assembly Bill 53 deals with driver's licenses, identification cards, commercial driver's licenses, and ignition interlock devices. Assembly Bill 63 deals with various aspects of the DMV's business, including titles, inspections, the license plate factory, fees, special license plates, and temporary parking placards.

In the Senate, we have a couple of bills. Senate Bill 22 would align the state definition of a salvage vehicle with the federal and industry definition. Senate Bill 71 would make various changes to the statutes covering fuel taxes, eliminating obsolete language, and clarifying existing language.

The Department also has several budget bill draft requests that will be heard in the money committees in conjunction with the Department's budget request.

Finally, I would like to leave you with our organizational chart and contact information [pages 11-12, (Exhibit F)]. I am open to any questions the Committee may have.

[Assemblywoman Monroe-Moreno reassumed the Chair.]

Chair Monroe-Moreno:
Are there any questions from the Committee? [There were none.] I do have one. What will be involved with getting DMV up and ready for the automatic voter registration? How long do you think that is going to take? Did the Department do any preparation in anticipation of the vote?

Julie Butler:
What is involved is basically determining what data elements we need to pass to the Secretary of State and the county clerks and then figuring out the best method to securely transport that information to those offices. Internally, we feel we have a pretty good handle on what that is going to take. As far as how long, I think last month the Interim Finance Committee was very clear that they want this functionality in time for the 2020 election, so we are going with that time line in mind. As far as any internal preparations beforehand, that is difficult, as Executive Branch agencies, to do when there are initiative petitions. The reason it is difficult is because we would be guessing if it is going to pass. If it does pass, we have to staff it, but if it does not pass, we have basically wasted the resources trying to prepare for it. I do not mean to be evasive of your question, but I know this is something the Department has been working toward in conjunction with the Secretary of State for a very long time. I think we are in a position now where, once we finalize the data elements and the transport mechanism as far as the DMV, we can get that information to the Secretary of State and the county clerks in order to meet the 2020 election.

Assemblyman Watts:
Could you speak a little bit about the technology fee and some of the technology changes you are implementing at the Department and whether any of that is also related to voter registration?

Julie Butler:
The technology fee is intended to fund the Department's modernization efforts. The Department has several legacy systems that, from a technology standpoint, the platform is ancient. That is not related to Question 5. Does that answer your question?

Assemblyman Watts:
Yes. Could you give me an update on how that transition is going?

Julie Butler:
The transition for Question 5 or the Department's overall modernization?

Assemblyman Watts:
The modernization effort.

Julie Butler:
The Department began that process last biennium and, as you are all probably aware, the Department had a contract with a company called Tech Mahindra but that contract has been terminated. Subsequently, the Department had spent several million dollars buying equipment that has since been excessed. That contract was not successful. The Department subsequently issued a request for proposal (RFP) to replace its driver's licensing registration and systems. That RFP resulted in one vendor responding. Our RFP evaluation committee, which is made up of experts internally and outside agency representation, rejected that

proposal. We are now looking at options and I am meeting with my staff. I have discussed this issue with the Governor's Office, and we will be going to the Governor's Office with a plan. We will then present that information to the Budget Division, Office of Finance, Office of the Governor, and the Legislative Counsel Bureau fiscal staff.

Assemblyman Carrillo:
I want to ask a question regarding the on-road dye diesel fuel enforcement program. Has it been effective?

Julie Butler:
If you bear with me for just a moment, I have a staff expert in the next room who can answer that question.

Dawn Lietz, Administrator, Motor Carrier Division, Department of Motor Vehicles:
Back in about 2009 was when we implemented legislation on dyed diesel penalties. It is a $2,500 fine if anyone is caught on the highway with dyed fuel. It then progresses to $5,000 and $10,000. Since that time, we have seen very few citations for dyed fuel on the highway. In the 2015 Session, we also implemented the ability for farmers and ranchers to get 80 percent of the tax back on their diesel purchases. Farmers and ranchers are no longer using the dyed fuel on the highway either. I believe we are seeing a success with that issue.

Assemblyman Carrillo:
We have many new members on this Committee. Could you explain the dyed fuel issue?

Dawn Lietz:
Prior to the legislation enacted putting the penalties in place, there was no fuel tax paid on dyed fuel. It is intended for off-road use. The mining companies use it, farmers were using it, and it was for home heating and things like that. The dye signifies there was no tax paid on the fuel. It is a bright red color and when it is used on the highway it is in violation of state and federal law. We were having many problems with farm equipment, mining equipment, pickup trucks, and people who had access to those dyed fuel tanks using those vehicles on the road and not paying their share of the taxes. I believe it was the 2009 Session that we had legislation that came before the Legislature to instill penalties on the use of the dyed fuel. We also put penalties in place for the suppliers that are selling the dyed fuel to retail companies. Those suppliers have a responsibility to get a signed notice of intended use from the customers they are selling it to so the customers are made aware that use of that fuel on the highway would result in those penalties.

Assemblyman Yeager:
I was at the DMV branch in Las Vegas on West Flamingo Road and South Durango Drive about six months ago. I was surprised to see the Las Vegas Justice Court actually has a window there where people can make good on their bench warrants or traffic citations. What was happening was people were trying to renew but were told by the DMV there was an issue that needed to be cleared up with the courts. I thought that was a very innovative

program and just want to encourage the DMV to look at potentially trying to expand that or include the municipal court. Obviously, there are staffing issues, but in terms of convenience, I thought that was a great idea and I want to commend you on the partnership and suggest you look at expanding into some other branches.

Julie Butler:
I have noted that suggestion and will take it back to staff.

Chair Monroe-Moreno:
Are there any further questions from the Committee? [There were none.] Thank you for your presentation. I will open the hearing for Assembly Bill 23.

Assembly Bill 23: Authorizes Department of Motor Vehicles to adopt regulations relating to certain electronically controlled vehicles and transportation devices. (BDR 43-365)

Jude Hurin, Administrator, Division of Management Services and Programs, Department of Motor Vehicles:
With me today is April Sanborn and Sean McDonald. Before you we have Assembly Bill 23. The reason we are submitting this bill on behalf of the Department is the result of last session [page 2, (Exhibit G)]. In 2017 Assembly Bill 69 of the 79th Session was introduced by the Office of Economic Development (GOED) of the Office of the Governor that would revise *Nevada Revised Statutes* (NRS) Chapter 482A for the Department in regard to autonomous vehicles. At that point in time, the language was revised. Some of the language that gave us the authority to be flexible with other types of technologies was removed. As a result, we had been working with the previous administration, Governor Sandoval's office, and others, to be able to introduce this bill to allow the Department of Motor Vehicles (DMV), as it intended to a few years ago, to deal with any technologies that are outside of the autonomous vehicle technology requirements under NRS Chapter 482A. I stress, this new chapter we are trying to create is not affecting NRS Chapter 482A, which relates to autonomous vehicles. This is concentrating on technologies that we come across and are introduced to that are not defined as autonomous vehicles under state statute or federal standards.

We are looking at a variety of technologies. One of the consequences of last session was, because of the removal of certain language, it removed one of our shining star programs from our technology program at the DMV that we implemented successfully with Arrow Electronics, Inc. I would like to give a shout out to Sam Schmidt and Joe Verrengia from Arrow Electronics, who are in Las Vegas and will probably speak later. We worked with them because we came across their technology. I will have Ms. Sanborn speak to this a little more. In essence, this was a technology that Arrow Electronics, within eight or nine months, created a technology that allowed a quadriplegic driver to electronically interface with a vehicle and operate that vehicle through a variety of sensors in their glasses. This was not defined as an autonomous vehicle and we knew that, but we wanted to expand our horizons in that technology. Nevada is the first state—actually in the world—that created regulations

for autonomous vehicles. Knowing that back in 2011, we wanted to make sure we were not just focusing on autonomous vehicles but other technologies as well. It has been a while, but we are here today to try to deal with those industries that are evolving with new technologies. Arrow Electronics is probably one of the greatest partners we have had.

We just met this week with a company called Piaggio Fast Forward, Inc. They have a product called gita, which is a transportation type of model that is actually interfacing with someone's smartwatch or smartphone. It is a cargo type of vehicle and can transport a variety of products up to 45 pounds. We are looking at a variety of technologies. There are motorcycles now that can basically stand up by themselves and operate without an actual person onboard. We need to have a law that allows us the flexibility to actually open dialogue and discuss with industry that if—and I stress if—this impacts our existing regulations and laws regarding transportation, then we have the ability to sit down with these folks and talk with them. We can offer to work with them, if needed, to work on safety requirements or whatever. If a company is looking to prototype their product, we can actually work with them to create a test program very similar to what we have under NRS Chapter 482A, but again, separate from NRS Chapter 482A.

Since 2011, when we actually started working on autonomous vehicles, the DMV has always included a variety of state agencies and outside agencies to discuss and determine how to create regulations that not only allow industry to test their products and to successfully deploy them, but to also make sure our citizens are protected while that testing is occurring [page 3, (Exhibit G)]. We have championed a lot of programs. Mr. Enos talked about the commercial vehicle Freightliner in his earlier presentation. Arrow Electronics was one of ours as well. This was a state thing. We do not take the feather in the cap for the Department. We love bringing state agencies and industry together and working as a team, because this is a team effort. We take that same theory and philosophy into the proposed NRS Chapter 482B with other technologies that are coming our way.

April Sanborn, DMV Services Manager III, Division of Management Services and Programs, Department of Motor Vehicles:

In the interest of time, I will run through the last slides fairly quickly because I know we have many of our partners in the audience who might have something to say today. Mr. Hurin mentioned Arrow Electronics [page 3, (Exhibit G)]. In 2016 we worked with Arrow Electronics. It did not fall under the definition of autonomous vehicles under NRS Chapter 482A. However, we were able to link that to our NRS Chapter 483 in order to be able to issue a highly restricted driver's license to Sam Schmidt, for him to be able to operate the vehicle that Arrow Electronics had created. As Mr. Hurin mentioned, unfortunately, the changes in NRS Chapter 482A during the last session severed our link to that program. We are hoping through the approval of the Chapter 482B, we will be able to continue that program and allow Mr. Schmidt and Arrow Electronics to continue with their groundbreaking efforts that are really an enhancement to the disabled community.

This slide [page 5] gives you an example of some of the technology we know is out there or on its way out there. Mr. Hurin mentioned the gita device, which is pictured in the center of this slide. We just met with the company yesterday. As you can see, these are transportation or personal delivery type devices. For the most part, they are meant to operate on sidewalks, private property, college campuses, and things like that, which is not what the DMV is looking to assume authority over. What we are looking at is when these vehicles meet the roadway or are in a crosswalk. We want to make sure we have the ability to have the conversations with these companies. As an example, with gita, we mentioned if the device does end up in a crosswalk, it is obviously a very low-profile vehicle. What opportunities are there to add a flag or flashing lights to the vehicle that could potentially be seen by a commercial motor vehicle? The DMV is looking to have those conversations. Adding Chapter 482B would allow the DMV to create regulations if deemed necessary. Again, we always work with the partners Mr. Hurin had mentioned. There are many people in this room we have sat down with to have a conversation to determine if we need to create regulations, do we need to look for something more permanent in statute, or perhaps not.

This slide [page 6] pictures more vehicles that could potentially be on the roadway and could end up falling under NRS Chapter 482A, which is not what we are looking to cross into. However, if they do not fall under NRS 482A, we want to have the ability to allow this type of technology on the roadway using the proposed Chapter 482B.

Another area DMV is looking at on a national level, including all jurisdictions in the United States and our partners in Canada, are remote operators and command centers being the next thing to operate fleets of autonomous vehicles on the roadway [page 7, (Exhibit G)]. As we mentioned, we are not looking at adding anything specific to the vehicles because that would fall under NRS Chapter 482A. However, when there are individuals operating the vehicle in situations like this, it begs the question law enforcement is wondering: Should they be licensed to operate the vehicles they could be taking control of? Perhaps they are commercial motor vehicles. Would we want individuals who are trained in commercial vehicles? If it is carrying hazardous materials or perhaps school children, do we want individuals trained in those areas? Some other things to mention include corrective lenses or hearing devices. Should that fall under the impaired laws we currently have in Nevada? Should we apply a certain age parameter to individuals who would be operating these vehicles remotely? We are not currently making the decision that they do need to be licensed, but those are questions being asked on a national level with our partners in law enforcement and DMVs across the United States and Canada.

Nevada is proud to be the first state to embrace this emergent technology and we look forward to continued partnerships as the technology evolves [page 8]. We are looking to include the technology by adding Chapter 482B and not exclude any of the technology that is out there.

Jude Hurin:
You should have before you an amendment from the DMV adding section 10 to A.B. 23 to include language not in the original bill that allows us to deal with future technologies (Exhibit I). The original bill deals with specifics, but we want to make sure there is language allowing us to deal with requirements for any type of future technologies. We have made the language general because we do not know what tomorrow will bring in terms of new technology. It allows us an open door to have dialogue with stakeholders and actually create a great partnership with them in the future. Nevada has always done that and has been the pioneer in doing so. We would like to continue on that road and continue to open doors to industry and keep our citizens safe. We have a unique state that allows us to do that on a variety of terrains, weather conditions, and so forth in order to make it very appealing for industries to come to Nevada to test those as well.

[Written testimony was also submitted (Exhibit H).]

Chair Monroe-Moreno:
Are there any questions from the Committee?

Assemblyman Sprinkle:
In reading the bill, a lot of emphasis is placed on "remote control" application of these vehicles. Are we talking about vehicles that have all the autonomous qualities that we have debated and discussed during the last two legislative sessions, but specifically include all the safety standards that we have been very adamant about in this building and in this room? Do we already have that and this bill is an enhancement because we already have someone remotely controlling those?

Jude Hurin:
You are correct. The bridge to this is the example you basically stated. We could have a company out there that has an actual autonomous vehicle under NRS Chapter 482A. They may also incorporate a remote operator technology to that. If so, NRS Chapter 482A does not address that. This new chapter would allow us to address it but not interfere with the autonomous technology in NRS Chapter 482A. It allows us to actually work with industry again. As Ms. Sanborn said, on a national level, we are already looking at that as well. However, we thought we would have a good opportunity to deal with stakeholders directly and figure out a way to actually safeguard those technologies on our roadways. We are ahead of the game on this one.

Assemblyman Sprinkle:
To make my comfort level a lot better, I want to be perfectly clear for the record. Are there going to be vehicles on our roadway that are not autonomous but are remotely controlled from some other place by an operator?

Jude Hurin:
I believe your question is, If there is a technology out there that is not autonomous, does this bill allow them to remotely operate? This bill would allow for an open door for those discussions and allow for the DMV to determine if it is allowed or if regulations need to be created to control those operations. If a company does not have an autonomous vehicle but has a fleet that they want to remotely operate, this bill gives the DMV the opportunity to discuss any concerns and we will need to create safety requirements to protect our citizens.

Assemblyman Sprinkle:
Unfortunately, that is not the answer I wanted to hear from you. That raises my concerns considerably about what we are going to be doing as far as public safety for everyone on the roads. This opens a whole other line of questioning as far as responsibility and liability. How are the insurance companies handling all this? Who is going to be responsible for insurance on all of these vehicles? In the end, I get what the DMV wants is the authority to start investigating all of this at your level. As a legislator, I take my responsibilities seriously when it comes to public safety. I do not believe at this level we should be talking about regulations. There have got to be some statutory things we need to be talking about. As opposed to asking all the other questions I have, I think I should probably need to be having more conversations with you and others before I will ever get comfortable with what you are asking to do here today.

Jude Hurin:
I absolutely understand. From a historical perspective as well, when Assembly Bill 511 of the 76th Session came out in the 2011 Session, it was tasked to the Department to create those very standards as well. We did not do this solely, and we are taking that same approach because we had the Division of Insurance of the Department of Business and Industry, law enforcement, the federal government, industries, and many other stakeholders involved to create those regulations. That was our methodology then and that is our thinking behind this now. This is something that affects all agencies. It would never be approved through the regulatory process without this body approving it.

Assemblyman Sprinkle:
I appreciate that. In the 2015 and 2107 Sessions, I was sitting in this room having these same conversations. We talked about where the responsibility level lies. We vetted a lot of those issues with autonomous vehicles before we ever got to the regulatory level. I feel like we are starting all over again on a whole new idea and subject. These are the sorts of conversations we are going to have to have. As I read this bill now, you are looking for carte blanche with all these other new technologies and innovative ideas without any oversight from the Legislature. You are just asking for us to allow you to do that, hoping you put in all the safety standards that I am personally concerned about. That is where my confidence is waning, so we will have to talk about that.

Jude Hurin:
We will be happy to discuss those issues with you.

Assemblyman Yeager:
I want to say thank you for this bill. I think this is the kind of forward thinking we need to be doing as a state. We are currently having conversations now about technology we know about, but who knows what is going to happen in the next 18 months. It is one of the tricky parts about us as a Legislature meeting every other year. It is hard for us to be responsive. Sometimes, putting things into statute is not the right approach because it can be too restrictive and trying to find that balance between allowing for innovation, but also, as my colleague said, making sure we are protecting the public. What is the philosophy of the DMV when a new technology comes to your doorstep? How do you analyze that? Is it a rubric of licensing or public safety? I am trying to get a sense of the Department's philosophy because this is certainly not the last time we are going to talk about emerging technology. It will probably be discussed in several sessions to come and during the interim. Could you give me a brief sense of how the outlook is at the Department for the new technologies that are coming on board?

Jude Hurin:
I will give you an example from 2011 when we were given A.B. 511 of the 76th Session to create regulations for autonomous vehicles. We had no idea what we were getting into. This was placed in our laps. We actually pulled in all the stakeholders. The DMV has authority over certain chapters of NRS. Other agencies, such as the Department of Transportation, the Department of Public Safety, and GOED, were pulled in along with stakeholders from the Division of Insurance, the federal government, and so forth, because we needed the experts in a variety of areas where we may not have the authority, but we needed to glean from that experience in order to create those regulations. It actually required us to have various insurance requirements, safety requirements, et cetera. When I say safety requirements, that is open ended. What does that really mean? We were looking at how to create this, but it could not be a technical type of regulation because we are an administrative agency. We had to take a business approach and form basic programs for testing, operation for public use, and so forth. The methodology that we had back then is similar, but we are always changing. The core foundation is we want to make sure we are creating something that multiple agencies that oversee the safeguarding of our citizens are involved in so we can actually have a safe program and, at the same time, allow industry to come and create partnerships. We are looking at NRS Chapters 483 and 482, which deal with traffic violations and licensing individuals. We are looking at a variety of things that we are responsible for to determine how things are going to be addressed with that type of technology. We have a variety of technologies and Arrow Electronics is a perfect example. How did we deal with that? We had to understand their technology first before we could figure out what the shortfalls were and try to plug those so citizens are protected. It is high level, but that is the kind of methodology we are looking at. I hope that answers your question.

Assemblyman Roberts:
I would like to compliment Assemblyman Yeager's comments and questions. I know the intent is not to interfere with autonomous technology currently in the state. We need to be nimble with regulations in order to have the ability to bring in new technologies. We are all for that. That is why the Nevada Tech Caucus was formed, and why Assemblyman Yeager

put it together. What type of approach did you take with those other autonomous companies? Did you do any outreach with them as you put this bill together? Sometimes bills could have unintended consequences. Could this impact them and their ability to continue to do what they are doing in Nevada?

Jude Hurin:
In regard to A.B. 23, we did not do any initial outreach to the existing autonomous vehicle stakeholders because our intent was that this bill would not affect them. We discussed this last week with a variety of firms and lobbyists who represent a variety of companies and we are working with them. I believe some of them have some amendments they would like to introduce, but we have not had a chance to look at them. However, we are open to look at those things and reassure them that this bill does not spill over to the autonomous vehicle chapter of NRS. This is dealing with other technologies that may or may not require us to create regulations. We are not here to create regulations just to do it. We want to make sure that if there are needs, we are able to address them for those technologies.

For instance, Yamaha Motor Corporation, USA and BMW of North America actually have a motorcycle that does not require a person to be on it. It actually follows the owner around, which is pretty creepy to me. At the same rate, they created the technology that allows a two-wheeled bike to stand upright. Is there anything the DMV would need to do? I do not know. I would have to look at the technology in depth. Is there anything law enforcement sees as an issue? They may not want to see a motorcycle going down the road with no one on it. This bill allows us and our fellow state agencies to vet these new technologies to determine if there is a need for safety requirements, clarification, or something to be created so the companies can safely test or deploy.

Assemblyman Roberts:
I did see a few amendments and that is why I asked that question. Usually, amendments at the introduction of a bill are due to the lack of outreach. I want to make sure we are doing that before this bill ends up in a work session.

Assemblyman Leavitt:
I am a cheerleader for innovation and technology so I would like to back up both my colleagues' comments. I do think certain protections are always a good idea. However, I do believe regulations should not stifle progress. Sometimes we tend to do that when something is new and innovative. We over regulate it causing it to disappear when it might have been a great idea, but we did not push forward with it because of the regulations. Your statement "if deemed necessary" is poignant in this situation. We have to be fluid. We have to have that kind of attitude toward it. With this type of technology, it is ever changing and changing so fast that it cannot be regulated as fast as we may want. There is a tight balance between no one getting injured and the gita getting run over by a truck. My point is, I would hope that we do not halt progress by putting forth too many standards that are, perhaps, unattainable.

Jude Hurin:
We agree 1,000 percent with you. Just to give you an example of how, in our regulations, we have not stifled industry and the movement forward is, we actually did not roll Arrow Electronics into a lot of unnecessary regulations. We wanted to get to the heart of what needed to be required from a safety perspective for our citizens when they do testing. They are a great company to work with. We were working with the Freightliner Inspiration Truck as well. With just those two programs, we became the first state in the nation to actually have the first autonomous commercial motor vehicle and the first state to actually have a vehicle that may not be deemed as an autonomous vehicle, but a technology that allows a quadriplegic or a disabled individual to operate a vehicle. I think our track record is showing the DMV has not stifled industry because we are ready to work with these companies in a safe and commonsense way and roll them out. The regulatory end of that gives us more ability to work with them because sometimes the statutes do not provide enough guidance or specifics around the safety requirements, insurance, et cetera. That allows us to be a little more specific and protects the industry and the citizens.

Assemblyman Leavitt:
I want to commend you for your foresight in all of this. It is refreshing to see. I do not want you to feel like I am not in support of you, because I am. I think you are doing a great job.

Assemblywoman Nguyen:
I like that we are thinking ahead about these types of things. I am just not sure why you think it is the DMV that is in the best position to be the experts or lead the charge. Are there any other entities or councils that may be more equipped to deal with this emerging technology?

Jude Hurin:
I go back historically to the 2011 Session. I am not 100 percent sure why the DMV was designated for this, but I am sure it had a lot to do with the driving responsibilities under NRS Chapters 482 and 483, traffic violations, the issuance of various license plates, driver's licenses, and so forth. We take this on with the same methodology as A.B. 511 of the 76th Session. It still affects the DMV as this technology affects driver's licenses, transportation of vehicles, and so forth. However, this also affects the Department of Public Safety, the Department of Transportation, and the Department of Business and Industry. The Office of Economic Development was tasked as being the point of contact for the state of Nevada under Governor Sandoval to work with all the agencies, as well as city and county ordinances, to build a kind of an infrastructure within the state of Nevada to deal with not just the testing and operations, but the infrastructure, the law enforcement capabilities, the insurance aspect, et cetera. There is a pseudo-type of community out there that submitted a request to Governor Sandoval asking for a taskforce to be created that would be a representation of each of those departments, as well as sending county representatives to actually work on present and future technologies and where we should be down the road 10 or 15 years from now. The Department would still love to see something created that way so we can have a body that actually works equally and looks at those projects. However, I think everyone has a piece of the pie.

Chair Monroe-Moreno:
Are there any further questions from the Committee? [There were none.] If you are here to testify in support of A.B. 23, I ask that you step up to the table, both in Las Vegas and in Carson City.

Joe Verrengia, Global Director, Corporate Social Responsibility, Arrow Electronics, Inc.
Arrow Electronics is a technology solutions company headquartered in Colorado. Arrow has had a strong presence in Nevada for decades. Now we employ 1,000 people in the Reno area in distribution and other technology supply chain services. We are grateful for the ongoing support of the state of Nevada and our relationship with the DMV for our unique and celebrated Sam Car. We are proud to be affiliated with Sam Schmidt's home state in one of Arrow's critical locations in our global operations.

The Sam Car project—and Sam Car in this case stands for Semi-Autonomous Motor Car—was started in 2013. It has a driver also named Sam, whom you will meet in a moment, who operates the car with his head with the help of electronics. It also has a second, fully-able co-driver with a full set of conventional controls for safety. We also lead and follow the Sam Car with conventional vehicles for added road safety. It is not remotely controlled. It does not conflict with commercial autonomous technologies. In fact, some of those very same technology companies are Arrow's valued customers.

After three years of successful racetrack demonstrations with the Sam Car, in 2016, with Nevada's help, we moved from racetracks to the street. As a result of that, the Sam Car was named the top automotive innovation in the world in 2016. We have appeared in all major media, from NBC's *Today Show* to the BBC *World News*. We have generated more than 2 billion media impressions in showing progressive, humanitarian technology. Nevada plates were featured in this coverage. Sam Schmidt is this project's only street driver, and he is one of the best drivers in the world. With the Sam Car, I have come to realize that Sam Schmidt is the astronaut for the disabled community in their quest for improved mobility.

As a result of our success, we are now engaging with hundreds of disabled people so they can drive again. Not on the street like Sam Schmidt, but on private controlled courses. We are especially focused on disabled veterans who have been injured protecting our freedoms and lost their own mobility in the process. Sam Schmidt, the Sam Car, and Arrow have been to Walter Reed National Military Medical Center, and I can tell you, those men and women are ready to go with us. We look forward to going to other veterans' locations.

In addition to the example that Sam Schmidt sets for all of us in the Sam Car, please remember, this car project is humanitarian technology. It is technology that makes life better. Arrow is not selling this commercially. We will not sell it, but we will give it away to qualified innovators to see what they can do. We are exploring ways that the technology package can help more so that perhaps a smarter wheelchair can partner with Mr. Schmidt and his surroundings, including the car, to enhance mobility and freedom.

We all understand that we will benefit from fully autonomous vehicles, but we believe in driving too. Driving is freedom. When Mr. Schmidt takes command of our car, with some help from our technology, he is doing more than just driving a car. He becomes the driver of his life, opening new avenues to explore all facets of his life. This technology is an inspiration to Sam Schmidt, it is an inspiration to our employees in Nevada and around the world, and it is an inspiration to the disabled community. We are proud to serve all of them and we are proud to work closely with Nevada.

Chair Monroe-Moreno:
I only have videoconferencing to Las Vegas until 4 p.m. I know there are three other people who would like to speak. We will finish taking testimony from those in Las Vegas, and then we will take testimony from those in Carson City.

Sam Schmidt, Private Citizen, Las Vegas, Nevada:
I am the founder of Conquer Paralysis Now and, more recently, Driven NeuroRecovery Center in downtown Las Vegas. Prior to that, I was a professional race car driver for much of my life. In 1999 my career peaked with sitting on the pole position and winning the race at the Vegas.com 500, an Indy car race at Las Vegas Motor Speedway. Four months later, I was testing an Indy car in Florida when I hit the wall at 200 miles per hour. I blew apart my C3 and C4 vertebra. I was on a ventilator and basically told by the neurosurgeon to find a nursing home because I would be on a ventilator for the rest of my short life. That was 19 years ago.

I vividly remember what that message meant to me. It turned the lives of me and my family upside down. One of the biggest heartbreaks was, I knew that I would probably never be able to support my family again, that I would never be able to drive a car again. We have gone on to do some great things in the industry in the motor sports community, but again, I never thought in my wildest dreams that I would ever drive again. Arrow heard about my story in 2013 when they came up with this crazy idea and this acronym that just happened to be my name. I got a text from Mr. Verrengia asking if I wanted to drive again. My response was, "Am I being punked?" I did not think it was possible. Seven months later, I was on a simulator. Nine months later I was in the car in an on-track environment. The technology through private investments ramped up very quickly. It has been an amazing ride ever since. First we went 100 miles per hour, then we went 150 miles per hour. We raced at Pikes Peak. Talk about true faith in putting your hands in technology, driving Pikes Peak and 156 turns was the epitome of that.

When Arrow approached me in 2016 and asked me if I wanted to get my driver's license again, I thought they were crazy and there would be no way. I am very, very proud of the fact that I have been a southern Nevada resident for 25 years. Mr. Hurin and Ms. Sanborn took the initiative hand in hand with Arrow and fast-tracked the ability to do this. Arrow deals with the U.S. Department of Defense. Talk about redundancies. Talk about safety. A Fortune 500 company does not want bad publicity for a car that hurt someone. There was that risk, but they felt totally comfortable making it happen because the technology is, as several of you have mentioned, advancing rapidly. We went to the Henderson DMV.

I waited in line like everyone else. I got my driver's license and got my picture taken. It was an extremely proud moment to be able to do that. I had my kids and my family there. We drove the streets in Las Vegas and down Las Vegas Boulevard with the top off that car. It was life changing. Since that time, the technology has changed the lives of hundreds, if not thousands, as it now transitions to industrial applications.

Back to Mr. Enos' trucking application, where there are literally 48,000 commercial driver's license jobs available now—why could a lot of those jobs not be held by our disabled veterans, of which there are 60,000 from Iraq and Afghanistan alone? There is so much crossover just in the conversation you have had today that all stems from one company taking the initiative, making the investment, and getting out there, even though they could have been shot down. I really applaud the state of Nevada and the people in that room in Carson City because they allowed this to happen.

As has been said several times, this is coming. Autonomous is the big buzzword, but that is not going to flip a switch and happen overnight. We need programs like this to bridge that gap and allow people to be able to operate in a semiautonomous environment to develop this technology. I am here as a firm advocate of someone whose life was changed by this technology. I believe it can literally change the lives of millions in the future to get back to work and to get a level of independence, specifically our disabled veterans who have already paid a hefty price. I have met so many of them at the veterans hospitals. All they want to do is get back to work and put food on the table for their families. This technology allows that to happen.

Tina M. Frias, Airport Chief Administrative Officer, Director's Office, Clark County Department of Aviation, Las Vegas McCarran International Airport:
The Clark County Department of Aviation is neutral regarding A.B. 23. We did, however, submit an amendment (Exhibit J) because there are some airport impacts as it relates to autonomous vehicle testing. We believe our ground transportation area is not conducive to autonomous vehicle testing. Our amendment would exempt the airport ground transportation areas. We have very busy operations at the Las Vegas McCarran International Airport. We also have extreme peaks. Those peak times are expanding as our numbers continue to rise, with over 49 million passengers. It is very important to us for the customer experience that we are able to get the passengers from the airport to their destination without any type of delays.

We also have concerns surrounding our enforcement capabilities on being able to manage the autonomous vehicles, as well as our permitting processes at the airport. Again, we are neutral in regard to the intent of the legislation; however, we are proposing this amendment that we believe will resolve those impacts. I can answer any questions you may have.

Chair Monroe-Moreno:
Have you had the opportunity to speak with the sponsors of the bill about your amendment?

Tina Frias:
No. I have not personally had the opportunity. I am located in Las Vegas, but we do have a lobbying team in Carson City and they have notified me that they will make those efforts.

John Fudenberg, Coroner, Government Affairs, Office of the Coroner/Medical Examiner, Clark County:
I have spoken to the sponsor on behalf of Ms. Frias. They seem to be fine with the amendment (Exhibit J) at this point. I will let them speak as to whether or not they are in full support.

Chair Monroe-Moreno:
Is there anyone else in Las Vegas who would like to testify? [There was no one.] Are there any questions from the Committee? [There were none.] Is there anyone in Carson City wanting to testify in support of A.B. 23?

Kelly Crompton, Government Affairs Manager, Office of Administrative Services, City of Las Vegas:
The City of Las Vegas is in support of A.B. 23. We believe the DMV is the appropriate state agency to regulate these types of vehicles. We believe regulating these types of vehicles will help the advancement of the city's driverless mobility efforts. The City of Las Vegas is a hub in the downtown area for testing these types of technology-based products. We believe this will continue to help define and regulate those vehicles that want to come into the area and operate. We do share public safety concerns and are open to more conversations around the public safety aspect. We are in support of the state being forward thinking when it comes to this technology.

Susan L. Fisher, representing Piaggio Fast Forward, Inc.:
The orange image that was in the center of DMV's PowerPoint presentation [page 5, (Exhibit G)] was Piaggio's little critter named gita. We have actually met with DMV, and we appreciate their enthusiasm for our product. It does not actually fit into their bill. We had proposed an amendment because ours does not contemplate going on the streets except for, perhaps, in a crosswalk, as was mentioned by Mr. Hurin. We appreciate DMV being willing to speak with us, and also being very forward looking with emerging technology. Our technology contemplates helping people with disabilities so they can be more mobile on sidewalks and parking lots, while it is not specifically in this bill at this time and probably will not be because of the statute. Our technology will carry things for individuals and have a payload of about 45 pounds. It pairs to a watch or a phone and follows wherever the individual goes. It is not an autonomous vehicle where it is driving itself, necessarily. It would go wherever I go, and hopefully this session, we will have one here for you to see.

Chair Monroe-Moreno:
I look forward to seeing gita when it is here in the building. Is there anyone else here to testify in support? [There was no one.] Is there anyone here to testify in opposition? [There was no one.] Is there anyone here to testify in neutral?

Jodi Stephens, representing Waymo LLC:
Waymo LLC is part of the Self-Driving Coalition for Safer Streets. We are here to testify in the neutral position. We do not have a problem with the intent of the legislation, but we would like to clarify that autonomous vehicles be left in NRS Chapter 482A and not included in the new Chapter 482B being proposed. We did meet with DMV, and they were very gracious. After that meeting, we put together an amendment (Exhibit K), which we just handed them prior to this hearing, so they have not had time to review it. I do apologize for the late notice in getting it to the Committee. The amendment is to further clarify that autonomous vehicles and the driving systems are left completely out of the proposed Chapter 482B.

Chair Monroe-Moreno:
Is there anyone else here to testify in neutral? [There was no one.] Would the sponsors please come forward to make final remarks?

Jude Hurin:
We would just like to thank the Committee and all the industry representatives who came forward. We are here to work with them, and with you as well, to make Nevada a really good state to come to for emerging technologies. We appreciate all the questions and concerns and do take them to heart and will put them into action.

Chair Monroe-Moreno:
I think I can speak for the other Committee members in that we like that we are the first state to embrace this emerging technology. However, as you heard from a number of the Committee members, there are concerns for safety. I ask that you reach out and meet with them to address those concerns before we move forward. Also, please have a discussion with the other people who testified today to discuss their amendments to see if they are some things you want to work through or not. Afterward, please get back to me and the Committee to let us know. I will close the hearing on Assembly Bill 23.

Unfortunately, this hearing went a little longer than we had anticipated. There are two other bills on the agenda. We have spoken to the sponsors of those two bills and we will be rolling those two bills to another date. If you did come today to speak on those bills, I apologize. We have other committees that will be starting at 4 p.m. that members of this Committee need to be in. Again, I apologize for rolling them to another day. I want to remind you that if you do want to submit an amendment, please make sure the bill number and the submitting agency is on the amendment and get it in by noon the day before the hearing.

Is there anyone here for public comment?

Paul J. Enos, Chief Executive Officer, Nevada Trucking Association:
I just want to make sure this gets on the record. There was a question asked about the use of speed governors. I have sent that information to the committee manager, the Chair, and Assemblywoman Bilbray-Axelrod. The most recent comprehensive data is from the

American Transportation Research Institute, titled "An Analysis of the Operational Costs of Trucking: 2018 Update 10/2018." Of those folks who responded to the survey—which is not everyone but is a cross section—86 percent are using speed governors and 75 percent of the respondents indicated they are using them across their entire fleet. That means some are only using them in certain jurisdictions, such as a state like California where they have a differential speed limit.

Chair Monroe-Moreno:
Seeing no other public comment, this meeting is adjourned [at 3:50 p.m.].

Assembly Bill 24: Revises provisions governing the requirements for posting of security bonds by motor vehicle-related industries and activities. (BDR 43-229)

[Agendized but not heard.]

Assembly Bill 63: Revises provisions governing vehicles. (BDR 43-226)

[Agendized by not heard.]

RESPECTFULLY SUBMITTED:

_____
Lori McCleary
Committee Secretary

APPROVED BY:

_____
Assemblywoman Daniele Monroe-Moreno, Chair

DATE: _____

EXHIBITS

Exhibit A is the Agenda.

Exhibit B is the Attendance Roster.

Exhibit C is a copy of a PowerPoint presentation entitled "Trucking Moves America Forward," presented by Paul J. Enos, Chief Executive Officer, Nevada Trucking Association.

Exhibit D is a copy of a PowerPoint presentation, dated January 16, 2019, titled "Economic and Fiscal Benefits of Rural Renewable Facilities in Nevada," presented by Blake Guinn, Nevada Director, The Western Way.

Exhibit E is a document titled "The Economic and Fiscal Benefits of Rural Utility-Scale Renewable Energy Facilities in Nevada," dated September 2018, submitted by Blake Guinn, Nevada Director, The Western Way.

Exhibit F is a copy of a PowerPoint presentation, dated February 14, 2019, titled "Nevada Department of Motor Vehicles Department Overview Presented to Assembly Growth and Infrastructure," presented by Julie Butler, Director, Department of Motor Vehicles. Section 2 is titled "Organizational Chart." Section 3 is titled "Goals." Section 4 is titled "Revenue Projections." Section 5 is titled "22% Cap." Section 6 is titled "Automatic Voter Registration." Section 7 is titled "Bills."

Exhibit G is a copy of a PowerPoint presentation titled "Nevada DMV," presented by Jude Hurin, Administrator, Division of Management Services and Programs, Department of Motor Vehicles; and April Sanborn, DMV Services Manager III, Division of Management Services and Programs, Department of Motor Vehicles.

Exhibit H is a written testimony, dated February 12, 2019, submitted by Jude Hurin, Administrator, Division of Management Services and Programs, Department of Motor Vehicles.

Exhibit I is an amendment to Assembly Bill 23, dated February 12, 2019, submitted by Jude Hurin, Administrator, Division of Management Services and Programs, Department of Motor Vehicles.

Exhibit J is a proposed amendment to Assembly Bill 23, dated February 6, 2019, submitted by John Fudenberg, Coroner, Government Affairs, Office of the Coroner/Medical Examiner, Clark County.

Exhibit K is an amendment to Assembly Bill 23, submitted by Jodi Stephens, representing Waymo LLC.