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

Eightieth Session
February 26, 2019

The Committee on Growth and Infrastructure was called to order by Chair Daniele Monroe-Moreno at 1:34 p.m. on Tuesday, February 26, 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
Joan Waldock, Committee Secretary
Alejandra Medina, Committee Assistant

OTHERS PRESENT:

Scott Leedom, Director, Public Affairs, Southwest Gas Corporation
Debra Gallo, Director, Regulatory Projects, Southwest Gas Corporation
Judy Stokey, Vice President, Government and Community Strategy, NV Energy
Douglas A. Cannon, President and Chief Executive Officer, NV Energy
Richard "Hank" James, Executive Director, Nevada Rural Electric Association
Rosemary A. Vassiliadis, Director of Aviation, Clark County Department of Aviation
Marily M. Mora, President and Chief Executive Officer, Reno-Tahoe Airport Authority
Chris "Tank" Johnson, Airport Manager, Minden-Tahoe Airport
Athar Haseebullah, Private Citizen, Las Vegas, Nevada

Chair Monroe-Moreno:
[Roll was called. Committee rules and protocol were explained.] Today we will have an overview of utilities.

Scott Leedom, Director, Public Affairs, Southwest Gas Corporation:
With me is Debra Gallo, who is the Director of Regulatory Projects. We will first give an overview of the structure of our company and the issues we deal with [page 2, (Exhibit C)]. We will then talk about some of our legislative efforts this session. Finally, we will talk about some of our expansion projects.

In December of 2016, our Board of Directors voted to approve a holding company structure that provides a greater separation between the regulated and the unregulated sides of our business [page 3]. It offers us additional financing flexibility which has been helpful. Effective January 4, 2017, the structure has been in place. Our regulated side consists of Southwest Gas and Paiute Pipeline Company. Our unregulated side is the Centuri Construction Group Inc., one of the larger pipeline contracting companies in North America and a part of our holding company structure.

As many of you might know, we serve in three different states [page 4]. We are the largest provider of natural gas in Nevada and Arizona. We also serve small parts of California in the Victorville and Apple Valley areas and in Lake Tahoe, up into Truckee. We are an investor-owned natural gas distribution utility. We do not own or operate natural gas wells, so we are not vertically integrated like some other utilities in Nevada. We purchase natural gas on the wholesale markets and transport those supplies through interstate pipelines to our customers. We also have transportation customers who purchase their own natural gas; we serve those customers through our distribution network. We have over 2 million customers systemwide; over 1 million of them are in Arizona. Ninety-nine percent of our customers are residential and small commercial customers. Our company employs over 2,200 people.

We have approximately 754,000 customers in Nevada—over 650,000 in southern Nevada and almost 100,000 in northern Nevada [page 5]. We serve the Las Vegas area and will be adding service to Mesquite. We also serve the areas along the Interstate 80 corridor and everywhere in the state that has natural gas except the Reno/Sparks area. In Nevada, we have over 1,100 full-time employees. We are a large taxpayer in the state. We have over 8,000 miles of pipeline.

Paiute Pipeline Company is a subsidiary of Southwest Gas [page 6]. It has 895 miles of high-pressure steel transmission pipeline that runs from the Idaho-Nevada border to the Lake Tahoe area. It is regulated by the Federal Energy Regulatory Commission. We own a liquefied natural gas (LNG) storage facility in Lovelock, Nevada, that holds approximately 12 million gallons of LNG [page 7] used for peak shaving. Because it gets so cold here in the north, we need it during the winter months to make sure we have enough storage and supplies for our customers in the north.

Debra Gallo, Director, Regulatory Projects, Southwest Gas Corporation:
The Paiute Pipeline is regulated by the Federal Energy Regulatory Commission [page 8, (Exhibit C)]. Southwest Gas is regulated by the Public Utilities Commission of Nevada (PUCN) that regulates investor-owned utilities. The PUCN sets rates and tariffs and ensures we have an adequate supply of natural gas for our sales customers. It oversees pipeline safety and energy efficiency programs. The Legislature sets policy; PUCN implements that policy. Regulation provides the public with both the benefits that would be achieved by competition and the efficiencies of operating as a monopoly.

The natural gas industry uses something we call resource optimization, meaning our industry focuses on the direct use of natural gas at homes or businesses [page 9], which we think is the most efficient way to use the resource. Direct use can cut carbon emissions because you are not generating electricity but using it directly at the source. Direct uses include stoves and ovens; clothes dryers; water heaters; fireplaces; and outdoor amenities, such as grills and pool heaters. The distribution of natural gas directly to consumers means there is a minimal amount of energy loss. Page 10 shows that. If we are going directly from the wellhead producing the natural gas to the home, the losses are less than when using it to generate electricity, then using the electricity.

Scott Leedom:
We also have compressed natural gas (CNG) [page 11], which is mainly used in fleet vehicles, not personal vehicles. You cannot go to a car dealership and buy a CNG vehicle. The Regional Transportation Commission (RTC) of Southern Nevada uses CNG for its buses. It is also used for trash haulers for public services. It offers benefits that diesel and gasoline cannot provide—one is price stability. There are also some environmental benefits. We partner with agencies in southern Nevada and look forward to partnering with others.

Combined heat and power (CHP) is also known as cogeneration [page 12]. It is the ability to generate electricity and useful thermal energy in a single, integrated system. With cogeneration, heat that is normally wasted in conventional power generation can be

recovered as useful energy. Recaptured heat from the process of creating power with natural gas can be reused for space heating, water heating, or a number of other uses. One of the best examples of a cogeneration facility is located on the MGM Resort International's CityCenter property. It is an 8.2-megawatt CHP system that uses natural gas to generate electricity through twin turbines. The waste heat is captured and used to warm domestic water for the adjacent properties, such as Park MGM, New York-New York Hotel and Casino, and T-Mobile Arena.

We are supporting two bills this session [page 13, (Exhibit C)]. Senate Bill 154 regarding renewable natural gas is sponsored by Senator Atkinson. A gas infrastructure replacement bill, Senate Bill 160, is sponsored by Senator Brooks. The bills are starting in the Senate Committee on Growth and Infrastructure. You should be hearing them in the near future.

Debra Gallo:
Renewable natural gas (RNG) is methane produced from a renewable source, then turned into pipeline-quality gas [page 14]. It can be found in agricultural waste from cows, wastewater treatment facilities, landfills, or food waste—anything that creates methane on its own—thus making it renewable. The natural gas industry is involved in having a renewable source of natural gas. Senate Bill 154 has been introduced to promote renewable natural gas investment [page 15]. The bill will ask the PUCN to draft regulations allowing Southwest Gas to implement an RNG project including investing in RNG projects, contracting with RNG producers to build and operate plants, and purchasing RNG. This could lead to the reduction or avoidance of emissions of air pollutants or greenhouse gas, the creation of jobs in the sustainable energy fields, and the increase of diversity in Nevada's renewable energy supply portfolio, an option for consumers interested in purchasing from renewable sources.

Scott Leedom:
Senate Bill 160 relates to our gas infrastructure replacement project and regulations [page 16]. Gas infrastructure replacement (GIR) allows the utility to proactively replace aging infrastructure before there is a safety and reliability concern. This program has existed for six years under PUCN regulations, replacing about 400 miles of pipeline across the state. We want the regulations clarified, codified, and put into statute. The regulations were made without statutory backing. As was mentioned earlier, typically, the Legislature will set energy policy and the PUCN will implement it. In this case, it is going backwards. It would benefit the utility and our regulators to have statutory framework for these projects. The proposed bill would modify and conform existing GIR regulations to comply with legislative directives. The clarifying part would allow us to submit multiyear plans for these projects. We now have to submit them annually. It would also allow for quarterly rate adjustments and annual prudency reviews with the PUCN. It is important to note that nothing in the bill removes the PUCN's ability to approve or deny projects, which is something we have been discussing with them for months. We believe it is good state policy to be proactive in

replacing aging infrastructure. Some pipes have been in place since before 1970. They do not do well in the heat, which is an issue in southern Nevada. It is a program we would like to use and something we would like the Legislature to weigh in on.

Debra Gallo:
Senate Bill 151 of the 78th Session was approved by the Legislature [page 18]. It addressed Southwest Gas's ability to extend services to unserved and underserved areas of the state. At the time, about 35 states had some type of mechanism; now almost all of the states do. The bill allowed the PUCN to apply a balanced and equitable approach to review and approve projects. It also provided the PUCN with the flexibility, discretion, and authority to consider alternative cost recovery methods based on the facts and circumstances of individual projects. Subsequent to the passage of S.B. 151 of the 78th Session, the PUCN opened a rulemaking to develop the procedures a natural gas utility would use to file an application to extend natural gas infrastructure.

In November 2017, we filed our first application to extend natural gas to the City of Mesquite [page 19]. It was approved in May 2018, making it sound easier than it was. We hooked up our first customer on February 11, 2019. This gives the city a new option to attract businesses and industry they had previously been losing to southern Utah, which had put in place a similar bill about 20 years earlier. Our next filing is for the Spring Creek area of Elko County. Our goal is to get it done the first quarter of 2019. If you have not worked with the PUCN, you might not understand that the filings are very detailed. We learned a lot from our first filing, so we are making sure we have everything we need in our filing. Other areas under consideration are the Apex Industrial Park in North Las Vegas, Sloan, and Pahrump. This would give us options, and it gives the PUCN the authority to approve, disapprove, or change what we have done.

Assemblywoman Bilbray-Axelrod:
You mentioned additional projects under consideration. Would the Apex project capture methane gas?

Debra Gallo:
No. The project would extend natural gas services. The area does not have natural gas. There is a pipeline near there. Many industrial processes require natural gas, so it is key to make it available there. We are making a filing, but the developers have other challenges they are trying to work through in order to develop an industrial park.

Assemblywoman Bilbray-Axelrod:
You are digging once to get a pipeline out to Apex. Would it make sense, if you are digging once, to create the ability to transfer the methane gas back into different areas?

Debra Gallo:
There must be a generator of the methane, so there would need to be a water treatment plant or a landfill nearby.

Assemblywoman Bilbray-Axelrod:
There is a landfill out at Apex.

Debra Gallo:
The landfill is near Apex, but is on the other side of the freeway. We would talk with anyone generating methane to see if there is something that would work and if they would be interested.

Assemblywoman Nguyen:
Are there any existing RNG projects or will the legislation be the beginning?

Debra Gallo:
We are talking to several groups to see if there would be interest. In Arizona, we are working with several groups also. There has to be the right combination to make methane. We need the legislation first to allow the PUCN to look at this emerging technology to see if we can work with it. It is an interesting technology in an industry we are looking to expand.

Assemblyman Ellison:
Where is your main gas plant?

Scott Leedom:
We have an LNG storage facility in Lovelock.

Assemblyman Ellison:
How are you operating that? There is no natural gas source in that area.

Scott Leedom:
The LNG tank is not where natural gas is created; it is where we store natural gas as LNG. You are correct, there are not many natural gas resources in Nevada. The majority of the natural gas we get to serve the people in the south is from the Kern River pipeline. In the north, many of our customers are served off the Paiute Pipeline, which originates on the Nevada-Idaho border. The gas is from Wyoming, Idaho, and other northern states with greater natural gas resources.

Assemblyman Ellison:
When they brought in the Paiute Pipeline at the border, they were planning to put in a distribution center or plant. Is that still being considered?

Debra Gallo:
Not that I am aware of. The LNG plant is for peaking. We take natural gas, liquefy it, then store it. Natural gas cannot be stored in gaseous form, so we liquefy it. When we need to regasify it, we can put it into the system. Could it have been the Ruby Pipeline LLC you were thinking of? Paiute only goes over to Elko.

Assemblyman Ellison:
I am thankful you took the line out to Spring Creek. Is it going into the housing district? It will not stop at the high school but will go to the hub at the housing development, correct?

Debra Gallo:
We are still working on the actual plan. We serve Elko but stop at the hill. In the Ruby Mountains, you go up a hill and down into a huge valley called Spring Creek. Many people live out there; the population almost surpasses Elko. The plan we are developing is to take it into Spring Creek, out closer to Lamoille.

Assemblyman Leavitt:
You said you purchase natural gas at wholesale prices. Who sets the wholesale price? How often is that adjusted?

Debra Gallo:
Natural gas at the wellhead is unregulated, so we bid. The transportation is regulated by the Federal Energy Regulatory Commission; the transportation in the state is regulated by the Public Utilities Commission of Nevada. Natural gas is a commodity, and its price is unregulated.

Assemblyman Leavitt:
How often do you bid on it?

Debra Gallo:
We plan. We go out at different times through the year. We have contracts of varying lengths. We may have some one-year contracts, some three-year, and some that are triggered by need. We put together a portfolio, trying to get the best price and the most reliable source to serve our sales customers. We rarely can get a five-year contract.

Chair Monroe-Moreno:
For your Spring Creek/Elko project, are you on track? You said you wanted to be ready for filing in the first quarter of 2019.

Debra Gallo:
Yes, we are. This is a very detailed filing. In addition to maps, we spent months getting interest forms from people by going door to door. Now we are putting together the filing to present to the PUCN and providing our suggestions for how we would build out into that neighborhood. We need to get this filed, because it is a seven-month process. Once the

process starts, we need permits with NDOT [Department of Transportation] and BLM [Bureau of Land Management, U.S. Department of the Interior], which can add time to the process. In addition, it is cold out there, so the ground freezes. Elko is not like the Lake Tahoe area that places moratoriums on digging, but the temperature can prevent digging.

Chair Monroe-Moreno:
Seeing no other questions, we will hear from NV Energy.

Judy Stokey, Vice President, Government and Community Strategy, NV Energy:
Since January 1, Douglas Cannon has been our President and Chief Executive Officer. He will give an overview of NV Energy.

Douglas A. Cannon, President and Chief Executive Officer, NV Energy:
I will be providing an overview of NV Energy and the services we provide the state of Nevada. NV Energy has served Nevada through two different utility companies for more than 150 years [page 2, (Exhibit D)]. In southern Nevada, Nevada Power Company has been in business since 1906, serving the needs and the growth of Las Vegas and other southern Nevada communities. Here in northern Nevada, Sierra Pacific Power Company has been serving the needs of power users since the Comstock Lode and the mining rush. Our service territory, the area in which we are authorized to serve customers, covers about 46,000 square miles. It represents about 90 percent of the state's population. The Nevada Rural Electric Association members serve the remaining 10 percent. They are important partners in making sure we have appropriate energy services in the state. We serve 1.4 million customers and the 50 million tourists who visit the state annually. We have about 168,000 natural gas customers in the Reno and Sparks areas.

We employ more than 2,470 people throughout the state. The average tenure of those employees is about 14 years. We are proud of the stability of our workforce. When folks come to work for us, they generally stay with us for a long time. That is a compliment to and a reflection of the commitment of our employees to this great state. Two unions represent our employees—the IBEW [International Brotherhood of Electrical Workers] Local 396 works with us in southern Nevada; the IBEW Local 1245 works with us in northern Nevada. We have an incredible relationship with the union, which we value. We could not do what we do without our partnership with organized labor. We had a total payroll of $295 million in 2018. We contributed more than $232 million in taxes to state and local governments.

A term you will often hear is "vertically integrated utility" [page 3]. In simple terms, that means we handle everything for the customer from the point of the electrons being generated at a power plant to its delivery to a consumer's home, and everything in between. For the consumer, a business, or an individual, we represent a one-stop shop for energy services. We try to make that as easy as we can for the consumer. We generate over 6,000 megawatts of electricity in the state. A megawatt is a measure of a unit of energy that can serve between 700 and 1,000 homes. Why is that important? It is important because it gives Nevada energy independence. We are not beholden to another state or to the market; we have those resources that sit in our state. We know that, on those hot summer days, we will have

generation dedicated to keeping the air conditioners on, to keeping the lights on, and to keeping businesses functioning. It is a real benefit to have an entity that holds that amount of generation. You will not be worried about whether the market will have electrons available. We own a transmission system. It is equivalent to freeways. The generation ties directly to our generation plants and takes the electrons from the generation plants to the load centers; city populations; big business—mines, data centers, or whatever the big business might be. We have a distribution network that is like side streets. That is where you tie into the transmission grid at a substation and distribute it out into the individual homes, businesses, or neighborhoods. A fairly new element of our system is the One Nevada Line running from about the Apex area to north of Ely, tying in at Robinson Summit. For the first time, we can connect our northern and southern operating systems. Now we are able to operate our systems more efficiently, because we can share resources north and south.

I want to mention the role of the Public Utilities Commission of Nevada [page 4, (Exhibit D)]. This is a critically important relationship and a critical component of our business. I am not sure everyone appreciates how much the PUCN can influence our business. They regulate and set every rate we charge. We cannot implement a rate or charge a rate to a customer without the rate having been reviewed by the PUCN and deemed reasonable by them. The PUCN reviews every single expense we incur and every investment we make in the system. They set the rate we can earn and our rate of return. Those are customer protections provided by the PUCN. We are always looking at opportunities to bring greater efficiency to the regulatory process, for the Commission and for the utility. This topic will likely be addressed throughout the session.

Another term you will hear when we talk about electric service is "fully bundled" electric service [page 5]. That means we provide a customer electricity, transmission, and distribution services. It removes the risk associated with being a market participant from the customer. Energy markets can swing wildly. In the last month we have seen prices for a megawatt of energy rise to be in excess of $150 a unit. Generally, that energy this time of year is $40 a unit. What is the benefit of being a fully-bundled customer? Given how we buy natural gas and the way we generate electricity, NV Energy smooths things out for customers so they continue to see low-cost energy and are not subject to sudden and significant fluctuations in energy costs.

Price and value guide NV Energy [page 6]. Nevada's energy costs are 47 percent lower than California's, 8 percent lower than other mountain states, and 16 percent below the national average. We have been able to manage costs and operate our system in a way that allows costs to be 15 percent lower today than they were in 2009. As a company, we continue to reduce those costs for our customers. We recognize how important energy costs are to economic development in the state and to the overall economy of the state. We are continuing to take steps to drive those costs down.

Our records from 2011 show that we are trying to keep costs down [page 7]. We have not asked for an increase in our revenue since 2011. By statute, we have to file general rate review cases with the PUCN every three years. If you look at our last few filings, in

February 2018 we reduced our revenue by $26.4 million and voluntarily, as a result of federal tax changes, reduced our revenue by $83.7 million. These are benefits our customers have seen in the last few years.

I spoke briefly about the One Nevada Line and the benefits it brings. Another benefit our customers are seeing today is our participation in the western Energy Imbalance Market [page 8, (Exhibit D)]. It allows that western footprint to operate generation assets in the most efficient way. Essentially, the generator that is the cheapest is the one turned on next, supplying the western states. In Nevada, we can always pull back and not participate in that market if we are concerned; we maintain our energy independence, but when we want to participate, we can receive the benefits. In the third quarter of 2018, our customers benefitted to the tune of $11 million. We see those types of savings on a regular basis. There are times that, by participating in the western Energy Imbalance Market, there is excess renewable generation occurring in California. The energy has to be put somewhere, so California will pay Nevada to take the energy, benefitting our customers. Those benefits do not go to NV Energy's bottom line—it is not profit for us. Instead, all of those benefits go directly to reducing energy costs for our customers. Every dollar of that reduces energy costs; it does not increase our profits.

We are committed to sustainability, renewables, and carbon reduction [page 9]. Today we have more than 50 clean energy projects supplying the state. We have met or exceeded the Renewable Portfolio Standards (RPS) for the past eight years. We support increasing the RPS to 50 percent in 2018. How we get to 50 percent is important. We look forward to working with stakeholders and with the Legislature to put in place policies that make sense. Our long-term goal is to serve the state of Nevada with 100 percent renewables. We look forward to working with this body to put in place reasonable and balanced policies that will get us there over time.

In December 2018 we received approval from the PUCN to construct 1,001 additional megawatts of renewable energies in Nevada. This represents about a $2.2 billion investment in the state. In addition, for the first time we will have utility-scale batteries associated with these projects. We are excited to have those batteries on our system. I think there is a real future in energy storage. It is something we will see more of as we progress. We continue to support more than 26,000 of our customers who have decided to put generation on their rooftops. We work with those schools, small businesses, and homeowners to ensure they receive the benefits of their private generation systems.

In addition to building renewables, what have we done to reduce our carbon footprint [page 10]? We have been retiring our coal generation fleet. In May 2017 the Reid Gardner Generating Station in southern Nevada was retired. By the end of this year, we will retire our remaining interest in the Navajo Generating Station, the last of the coal generation assets held by Nevada Power Company. That will leave the North Valmy Generating Station, which is currently scheduled to retire by 2025. Once that is done, NV Energy will be a coal-free electric utility.

We have recently introduced the Nevada GreenEnergy 2.0 Rider to the PUCN [page 11]. Our customers can choose a new rate allowing them to be served with 100 percent renewable resources. It will also allow them to price their energy based on these renewable resources. Many customers are seeing a price benefit. We are proactively working to meet the interests of our customers who want to use renewable resources.

We are committed to economic development in Nevada [page 12, (Exhibit D)]. Our economic development department is dedicated full-time to bringing new businesses to the state. We recognize low energy costs, renewable energy costs, and reliable service are critically important to bringing businesses to the state. I would like to offer our economic development department's services to this body to help bring businesses to your districts. We want this to benefit the state.

I would like to make some points on the role NV Energy plays in economic development [page 13]. We are the second-highest assessed property taxpayer in Nevada and the third-highest assessed property taxpayer in Clark County. We make a significant tax contribution to this state. In addition, we spend about $1 billion a year in operating expenses and capital investment in this state. We work hard to use Nevada-based contractors and suppliers when we buy products and services to support the energy grid in Nevada. We have more than 2,470 employees. Many of these jobs are high-skilled and well-paid, contributing to the state of Nevada.

We are focused on being a technologically advanced and proactive utility [page 14]. We have the largest residential thermostat program in the nation. We will come and install a Smart Thermostat in your home at no charge. The Smart Thermostat will allow you to control your air conditioning or heating load from an app downloaded to your phone. You can use some of the products and services we have to help control demand on hot summer days. In addition, we were one of the first utilities in the nation to have a smart meter system. The smart meter system gives customers greater data on their energy usage. The app and website can be accessed by customers so they can understand their energy usage and how to better control it. They can determine where they are spending too much. The smart meter network allows customers to do home energy assessments. It is a great tool for our customers to use to control energy costs. It also gives us a greater ability to notify customers during outages and to determine when there is a power outage, so we can address the situation before a customer calls to report an outage. Those notices keep me awake many nights—I receive every notice on my own phone. I watch and review them because I want to be sure we respond to customers quickly.

Finally, I will talk about reliability [page 15]. Nevada has one of the most reliable electric systems in the country. The reliability is based on the investments we have made and

continue to make in the grid. To improve reliability in the northern part of the state, we built four new substations in 2018. The Smith Valley, the Yerington area, Carson City, and Incline Village benefit from the new substation investments we have made.

We are using drone technology to help us identify and resolve issues on the grid more quickly. We are working to address climate change impacts on the grid. We will have to operate the grid differently in light of the wildfire risk and what California experienced. We do not want to experience that in Nevada. We are proactively looking at steps we can take to reduce the wildfire risk. Opportunities we have to mitigate risks of wildfire will be addressed during this legislative session to make sure we are well positioned not to have to deal with the uncertainty and economic challenges that Northern California faces.

We are committed to our customers [page 16, (Exhibit D)]. We want to provide products and services our customers need. Our commitment to renewable energy is driven by feedback from our customers. We recognize that we, as a utility, have to change—this is a changing environment and a changing marketplace for our customers who expect different in this modern world of Amazon and Google businesses. They expect quicker responses; they expect information to be at their fingertips; and they expect to be able to make instantaneous changes and decisions on the products and services they want. We are striving to be that type of provider and not the utility of 50 years ago. We want to be the utility of the future to meet those needs.

We have been a part of this community for more than 100 years. We are committed to Nevada and its residents [page 17]. We put action with our words. In 2018 the NV Energy Foundation and our employees contributed more than $6.6 million to different charities and causes throughout the state. Those 2,470 employees personally donated more than 34,000 volunteer hours to causes throughout Nevada. In addition, the NV Energy Foundation awarded more than $1.9 million in scholarships to Nevada students so they could go to college, advance their educations, and contribute to the workforce and economy of Nevada. The energy efficiency programs we run provided almost another $1 million to customers who were having a hard time paying their power bills. We make those contributions to make sure their lights, air conditioning, and heaters stayed on. We are proud of those contributions and are committed to continuing to support this community and great state.

Chair Monroe-Moreno:
Some members of the Committee have questions. We will begin with Assemblyman Yeager.

Assemblyman Yeager:
On page 14 of your presentation, you show new incentives available to businesses. Are there incentives available to residential customers? I know that, if you participate in the smart meter program, you can get a credit on your bill. Are there any other programs being offered to incentivize residential energy efficiency?

Douglas Cannon:
Our PowerShift programs offer opportunities to both commercial and residential customers. Residential customers can call for a home energy inspection to identify what they can do to lower energy usage—caulk windows or doors, install weather flashing around doors, or improve air conditioner or heater efficiency. We also work with customers on pool pumps and residential lighting.

Assemblyman Sprinkle:
If a customer chose to participate in the Nevada GreenEnergy Rider, would the rates be higher because of the source of the energy?

Douglas Cannon:
Rates under the Nevada GreenEnergy Rider 2.0 are currently only available to qualifying commercial customers. We are working on a program for residential customers. I expect you will see something about that later in the session. The way solar rates have come down allows us to lower customer rates using renewable energy. There is a limit on how much renewable energy we can put on the system before we create issues such as those California experiences when they have excess energy at certain times of the day. We are not there yet. We see this as being able to lower customers' rates.

Assemblywoman Nguyen:
I represent Assembly District No. 10 in central Las Vegas. Many of the neighborhoods in my district are older with aboveground power lines. We lose power for long periods of time on a regular basis—10 to 15 times a year. Are there any plans to improve or modernize the infrastructure in some of these older neighborhoods?

Douglas Cannon:
Yes. With the way Las Vegas has grown, the outside areas with newer infrastructure built in the early- to mid-2000s are newer facilities which do not have the issues an older facility in the inner city has. We have launched a capital improvement program. In the next year we will spend over $150 million to improve reliability in neighborhoods in Las Vegas. We will update the system, change out poles, replace underground lines that have failed before to make sure they are working, and do voltage conversion so the system is more reliable and stable. We will be making a significant investment and the program will continue in the future.

Assemblyman Carrillo:
How many companies have left NV Energy? I read recently that the Las Vegas Raiders have applied to leave and were granted permission. How will that affect residential customers?

Douglas Cannon:
Those choosing to use an alternative energy provider must go through a process with the PUCN. In order for an entity to use an alternative energy provider, the PUCN has to make a finding that it will not impact other customers. That is the purpose of the impact fee they are supposed to pay. Does the impact fee the PUCN sets appropriately compensate future

customers for the cost of the entity's leaving and using an alternative energy provider? That is the question in each proceeding. Parties like the regulatory operations staff of the PUCN, the Bureau of Consumer Protection of the Office of the Attorney General, and NV Energy offer evidence in hopes that the PUCN sets an appropriate rate that mitigates future financial harm to other customers. We participate in those proceedings because we do not want someone's use of an alternative provider to increase rates for other customers.

Assemblyman Ellison:
The Valmy Generating Plant is not very old. Is there a way to convert it from coal to natural gas, or will it have to be torn down?

Douglas Cannon:
We are analyzing options with Valmy but have not made a final decision on its ultimate outcome. We are considering converting it to burn natural gas. That would require significant infrastructure changes. We are analyzing all options in light of system needs—the reliability of the overall electric grid—and the economics for our customers.

Assemblyman Ellison:
You talked about price and value, comparing Nevada energy rates with rates in other states [page 6]. When was the last study done? If the chart is current, Nevada could have been hurt if Nevada State Question No. 3 had passed.

Douglas Cannon:
The data, gathered quarterly, is from September 2018. We were pleased with the outcome of the vote on Question No. 3. The Coalition to Defeat Question 3 did an incredible job striving for the outcome that was achieved, which we believe was the right outcome for the state. We believe this maintains an environment in which Nevada can enjoy stable, low-cost electric energy and the most reliable and stable electric grid. We share your concern that a different outcome could have resulted in significant increases in costs and could have added a lot of uncertainty about our energy future, which would not be good for economic development or for residents of the state.

Assemblyman Leavitt:
How is it possible for your consumer rates to be so much lower than neighboring states? What is your strategy? Are production costs for other states much higher?

Douglas Cannon:
Our strategy is to control costs internally. We take a careful approach to controlling operations costs. We review every operations cost, asking if the cost will benefit our customers. Secondly, we are proactive in how we procure energy, either electricity or natural gas. We procure natural gas using a ladder strategy—we buy increments of natural gas over time. What is the benefit? We have recently seen a rise in natural gas prices—over the last month, natural gas prices have gone from $4 a unit to $18 a unit. We met our natural gas needs when the price was $4 a unit, so we were able to weather through the higher prices without our customers seeing higher prices. We can watch the market. This week prices

have come back down; we can procure gas again. We have also been proactive in the way we bid renewable resources. We see tremendous benefits from the renewable resources we are adding to our portfolio. That is pulling down overall costs. Finally, we have good assets in Nevada—generating plants and the transmission system. We are well connected to the rest of the western electric grid so we can take advantage of market opportunities as they arise. Our generating plants are very efficient, so we get the most value for our dollar. Our customers benefit from all of those variables. As you put the variables together, you have an environment in which you can deliver some of the lowest-cost energy in the West.

Assemblyman Leavitt:
Page 6 makes it apparent California rates are higher. Is California an open market?

Douglas Cannon:
California is a hybrid market. Its community choice aggregation has an open market. In part, the open nature of their market drives the higher energy costs.

Assemblyman Watts:
What is the average time it takes to get approval for net metering? What is the average time it takes to get final sign off so the system can be powered up?

Douglas Cannon:
I do not have that data with me. I would be happy to get it for you. We have made progress since 2015. We received a lot of customer feedback from those who were concerned about the length of time it took to install a private generation system and to enjoy its benefits. We have dedicated resources and personnel to set up groups to meet the needs of those customers. I have not heard as many complaints. Either someone is not giving me the complaints or there are fewer complaints. I hope it is the latter.

Assemblyman Watts:
It would great if you could provide that data to the Committee. I hope I am an outlier, as I am about 4.5 or 5 months in.

Douglas Cannon:
We will check into that and make sure it gets fixed because we do not want any customer having to wait that long.

Chair Monroe-Moreno:
Please get the data to our Committee manager. Our next presentation is by the Nevada Rural Electric Association.

Richard "Hank" James, Executive Director, Nevada Rural Electric Association:
There is a lot that Mr. Cannon shared that we needed in our conversation. We have a great relationship with NV Energy. With me today are Carolyn Turner and James Wadhams from the Fennemore Craig P.C. team. They are lobbyists for the Nevada Rural Electric Association (NREA).

Our goal today is to provide you with a brief overview of the association and to give you a sense of the unique and distinguishing characteristics of NREA members. Rural public power organizations began forming in Nevada during the 1930s to procure and distribute electric service where there were no power lines, since it was not profitable to put lines out in rural areas [page 2, (Exhibit E)]. Each organization formed then and continues to build a legacy today to acquire and deliver safe and reliable power at cost to meet local needs. I say that because we just heard the investor-owned utility representative who talked to you about an integrated business plan—they generate, transmit, and distribute energy. Our members are distributors—we do not have generation plants; we only have transmission lines that serve the local areas.

Adhering to a not-for-profit, consumer-centric, servant-leadership business model, NREA members operate under these principles:

- Open and voluntary membership;
- Democratic member control—each entity of NREA has its own separate board, making its own decisions;
- Members' economic participation—each member pays its own way; we do not subsidize anyone; we all contribute for the benefit of the whole;
- Autonomy and independence—if you have seen one cooperative, you have seen only one cooperative—each one is independent and abides by *Nevada Revised Statutes* (NRS) and enabling acts; each has its own independent board making independent decisions;
- Education, training, information, and best practices;
- Cooperation among cooperatives—when we get into environmental situations such as a wildfire, major windstorm, or major snowstorm, we help each other; and
- Commitment to community—we are part of the fiber of each community we serve.

I have listed the titles and chapters of enabling statutes in NRS for you [page 2].

Another feature that distinguishes NREA members from other utilities in the state is that we have ten members, six of which are based in Nevada, and four of which are based out of state but serve Nevada [page 3]. Mt. Wheeler Power based in Ely serves into Utah. Wells Rural Electric Company based in Wells also serves Utah. Raft River Rural Electric Cooperative (Co-Op) out of Idaho serves the northern part of the state; Plumas-Sierra Rural Electric Cooperative (Co-Op) serves the northwestern corner of the state.

The map on page 4 shows the areas of NREA members. Valley Electric Association's area is identified on the map, but it is not a member of our association. About 65 percent of the energy distributed comes from large hydroelectric contracts we have with the federal government. The northern half of the state is served by dams on the Columbia River through the Bonneville Power Administration. The Western Area Power Administration and the Colorado River system serve NREA members in the south.

In comparison to the investor-owned utility, NREA has 5.2 meters per mile of distribution line, while the investor-owned utility has 45-plus meters. The infrastructure costs are isolated to just a few people. We serve about 45 percent of the state geographically. Our combined load is less than 10 percent. For perspective, at any particular time of any particular year, the peak load is 502 megawatts; NV Energy's is 7,800 megawatts. That gives you a perspective of geography, size, and distribution. We serve just over 45,000 people.

We are governed by democratically elected local boards, which are the core of each NREA member's distribution system [page 5, (Exhibit E)]. The boards concentrate on their policies, such as how the board interacts with employees and operational policies regarding how they are going to run the distribution system—will they run it at its maximum capacity all of the time, or at its minimum? Those are local decisions made based on local conditions. They also develop employee and human resource policies. Annual strategic planning is done in each NREA entity. As an association, NREA does not do strategic planning for all of the entities; each does its own strategic planning.

Page 6 shows the major decisions local boards make:

- Where do they get their power? Some of the large hydroelectric power contracts are 50-year federal contracts.
- They choose and create policy to enable individual member and community-focused resource generation—net-metering and individual, community, or commercial distributive generation projects.
- They have their own customer service energy efficiency programs to fit local conditions. The conditions in Mesquite are different than they are in Wells, so the local boards make their decisions on efficiency based on their local needs.
- They employ local community resources. There are very few people living in Carson City or Las Vegas and working in Pioche. They all serve the communities they live in. Many of them grew up there, went to school, and came back. They are dedicated community citizens and support the economic development of the local communities and the states.

The NREA advocates for owner-member/consumers with national and state legislators, agencies, local governments, and like-minded organizations about the importance of the services our utility members provide [page 7]. Together, we are embedded in the local economies, supporting and strengthening the communities we serve. Working together, we create innovative local energy solutions to enhance Nevada's rural quality of life. Lincoln County Power District was the first NREA utility to install a community solar facility. Our combined expertise makes our communities energy-efficient and safe. Our shared vision drives us to generate economic growth to keep our communities strong. The owner-member/consumers of NREA utility members are Nevada's public power.

Assemblywoman Bilbray-Axelrod:
You mentioned you were first to install a community solar facility. Would you expand on what that looks like?

Hank James:
It was a project the Office of Energy in the Office of the Governor helped the Lincoln County Power District develop. It is located between Pioche and Panaca. It is nearly fully subscribed. The folks who want to participate in it can participate on their local bill.

Assemblywoman Bilbray-Axelrod:
Would you please send us more details on that?

Hank James:
Yes.

Assemblyman Ellison:
Several years ago the Winecup Gamble Ranch was looking at building a hydroelectric system. Do you know what happened to that project?

Hank James:
I do not think it came to fruition. I am not familiar with what they are doing with it now.

Assemblyman Ellison:
I believe they intended to put the electricity on the grid.

Hank James:
I am not sure what their intent was. I think it was an experimental project to see if they could generate some of their own power.

Chair Monroe-Moreno:
We will now have a presentation from McCarran International Airport.

Rosemary A. Vassiliadis, Director of Aviation, Clark County Department of Aviation:
The Clark County Department of Aviation owns and operates the McCarran International Airport system. With me is Tina Frias, who is the airport's chief administrative officer.

We started in 1955 in the middle of nowhere [page 2, (Exhibit F)]. The arrow points to where the Las Vegas sign is to give you a point of reference. Page 3 shows today, where a city grew up around us. We sit on a 2,800-acre site. You can see that is all we will ever get in this location.

We served over 49 million passengers in 2018, an all-time high [page 4]. That made us the ninth-busiest in the nation and the twenty-seventh-busiest in the world. I failed to mention

that in 1955 we served about 86,000 passengers a year. Today we serve 136,000 a day. The thing that is important in the airport world is the total number of operations—what is coming in and out of the airport. I will address that later in the presentation. The Department of Aviation has nearly 1,500 employees, but we employ another 17,000 to make the airport run every day.

We are a county department—I report to the county manager [page 5, (Exhibit F)]. I have 11 major divisions set up by functions, 2 major offices, and about 1,500 employees. We operate as an airport system [page 6]. McCarran is the only commercial airport in the system, but we also own and operate North Las Vegas Airport and Henderson Executive Airport, which we consider reliever airports. We try to entice smaller aircraft—general aviation aircraft—over to those airports for service. We invest, along with the Federal Aviation Administration (FAA), to entice them. It helps preserve our airspace for commercial aviation. McCarran is the only airport in the system that can handle commercial aviation. We also own and operate Jean Sport Aviation Center which is where aviation enthusiasts, such as gliders and jumpers, go to play. We have a small community airport in Overton for that area.

Depending on the quarter, we are the second- to fourth-busiest origin and destination airport in the nation [page 7]. Over 80 percent of our passengers use every part of the facility; they are not just transferring through. Atlanta is the busiest airport in the nation in terms of the number of passengers, but only 35 percent is origin and destination, so 65 percent of their 100 million passengers never use the front door, ticketing, or checkpoints. That became very apparent when we began staffing for the Transportation Security Administration (TSA) in 2002.

Page 8 shows a summary of our passengers over the last 30 years. I like to show this because it is important to note that we rebound quickly—whether from an economic softening like we saw in the 1980s, 1990s, and at the beginning of 2000; 9/11; or the Great Recession. That comes into play when we are looking to see what our needs are. What do we have to have to serve our community in the No. 1 industry in southern Nevada? We have had eight straight years of increases since the Great Recession. We topped our all-time record from 2017 in 2018.

Another thing that is important to the destination is the international passenger [page 9]. We have been lucky in the growth since the recession. It is common to look at international growth in a recessionary time because foreigners are getting more bang for their buck. We have kept the international passengers, even though our economy has come back and the exchange rate is not as favorable as it was. Since the opening of Terminal 3 in 2012, we have welcomed ten additional international airlines. We will add two new international destinations this summer. American Airlines is asking the federal government for permission to provide direct service to Las Vegas from Tokyo. It is highly unusual for a legacy domestic carrier to fly to our destination by overflying the hubs they have invested in elsewhere. They ran charter flights every day during CES [a consumer electronics show in Las Vegas] and were successful enough to ask the federal government for a city pair [Tokyo-Las Vegas] slot.

I have provided a list of airlines serving McCarran [page 10, (Exhibit F)]. There are 13 domestic airlines and 19 international airlines. We serve 149 nonstop city pairs. It is unusual for a community of 2.5 million to have that type of service.

Page 11 is my favorite page. We are one of 11 airports in the United States with scheduled air service to four continents. That shows the strength of the destination and the importance of the airport in southern Nevada.

Our economic benefits to Clark County are strong [page 12]. We add about $30 billion into the community. We add over 200,000 jobs to southern Nevada. The visitors by air spend $25 billion, generating almost 180,000 jobs with $7 billion in salaries. Over 70 percent of conventioneers arrive by air at McCarran. That is our business traveler who we try to entice to return for a leisure visit.

We operate as a business enterprise fund, which is self-sustaining [page 13]. We do not take any tax revenue from the county or the state. Airlines, concessionaires, and tenants pay for the operations at the airport. We look at that critically when determining our charges. We know we are primarily a leisure destination, so our rates and charges to the airlines have to be as low as possible so airlines can get the highest yield.

Page 14 shows our sources of funds. Airlines' fees make up our biggest source of revenue by providing the top three types of revenue; concession fees are second. Two years ago this flipped—concessions and nonairline revenue provide about 51 percent and the airlines provide 49 percent. On the other side of the balance sheet you see our expenditures [page 15]. Debt is our No. 1 expenditure. In the last 20 years we had to build a lot in a short period of time, which meant we had to rely on bonds. We will be paying for that for the next ten years. Salaries and benefits make up a normal percentage of our expenditures.

In reviewing the airport's role in southern Nevada, we realize that we are the first and last look of Las Vegas [page 17]. We have to take that seriously. Las Vegas is known as the hospitality capital of the world. We want that to start at the airport. As different types of people travel to Las Vegas, the airport has become more than just a facility; it has become part of the experience. We have taken that into account in determining what we will do and how we will do it. A few years ago we launched "McCarran at Your Service." We no longer provide customer service; it is now called "customer experience." We have to inject that into every part of the operation so we match the hospitality tourists receive in Las Vegas. Last year we tied with Orlando International Airport at No. 1 in the J.D. Power 2018 North American Airport Satisfaction Study. My staff knows their goal for this year is to capture that award by ourselves. We will accomplish that goal by staying on the cutting edge of operations and the experience.

We were pleased the TSA selected us as an innovation site for all the security pieces [page 16]. We are rolling out each part of the program. We have had canines at the checkpoints and have had automated screening lanes redesigned for each checkpoint. Those make the operation more seamless. The "checkpoint of the future" will be unveiled shortly.

We will test four different explosive detection machines at the checkpoint. We have a separate checkpoint in Terminal 3 that will be opened for the public. We will determine, in partnership with TSA, what will work the best so that we have the best and the highest security at the checkpoint.

People are choosing to come to Vegas—they want Vegas, we are giving them Vegas [page 17, (Exhibit F)]. You probably remember what it used to look like. Baggage claim was a swap meet, in my professional opinion. Hopefully, it is brighter now since we put the sparkle in it and added natural light. People notice and, we hope, are excited to come to Vegas. We have changed our overhead music to "Voices of Vegas" [page 18]. I am amazed at how people recognize that. You do not get Muzak, you get music by someone associated with Vegas—either from old times or long-term residents. We also have local talent during big conventions or celebrations. For Mexican Independence Day, the Rancho High School mariachi band performed. We are trying to bring the community in, bringing students into the airport so our visitors know we are part of the community.

We have new amenities [page 19]. The nursing suites and indoor pet relief areas are mandated now, but we had them in before the mandate came down. We had listened to visitor comments on social media. We welcomed our first flight from China a few years ago. We made the terminal China-ready [page 20]. We got good feedback. Our Chinese visitors like hot water for tea and soup. We put in hot water stations and retrofitted the water fountains to filling stations.

We are also part of the community [page 21]. We want the community to come to the airport. We have a community enrichment team from the Department of Aviation. We also have an airportwide team that creates a lot of nice partnerships. We welcome the USO [United Service Organizations] at two USO lounges; one is in Terminal 1 and one is in Terminal 3. We are partners with the Wounded Warrior Project, Make-A-Wish Foundation, Miracle Flights, and Wings for Autism. We love to have the schools involved. My leadership team participates in Nevada Reading Week and hosts the Boys and Girls Clubs of Southern Nevada summer program. Airlines and our partners have teams for a friendly competition at our "Paper Plane Palooza" that brings underprivileged children to the airport. After the competition, the students are equipped with back-to-school backpacks filled with supplies.

An essential mission for me as an airport director is as a conduit to victims of human trafficking. We provide the hotline number and direct victims to where they can get help. Airports are transfer points for human trafficking. This type of activity has been silent for way too long. I will not stop until every commercial airport in the nation has messaging posted so this will no longer be a silent crime.

Sustainability is a constantly evolving program in partnership with airlines and tenants [page 22]. We will keep adding to that type of involvement. We think we have set the stage [page 23]. We opened Terminal 3 in 2012. We have room for now, but we cannot stop. We have 109 gates. We are not creating any delays in the system. We think we can handle 60 million passengers without any delays. We convert that to hotel rooms because 80 percent of our traffic are visitors of some sort. We think we can handle 30,000 more hotel rooms. We have to keep looking ahead [page 24]. We look at what it takes to run an airport. We need a balance of terminal facilities, roadways, and airfield so that one does not clog the other. That way, the travel experience is as seamless as possible. At McCarran we have terminal space; we are looking at ways to improve our roadways; but our airspace remains our most critical resource. We butt up against the Department of Defense at Nellis Air Force Base so we cannot expand, which will come into play as we continue to grow.

With that confining element, we have a second commercial airport site about 30 miles due south of McCarran off Interstate 15 in the Ivanpah Valley [page 25]. The site is a dry lakebed. Through an act of Congress [Ivanpah Valley Airport Public Lands Transfer Act], we were able to purchase over 6,000 acres for a second commercial airport site. It will not replace McCarran; it will be part of a dual airport system similar to Dulles/Reagan and O'Hare/Midway. Southern Nevada is looking forward to 2020 when the NFL [National Football League] stadium will open and the special events it will bring. Last September I got approval from the Board of County Commissioners to restart the environmental impact statement. We need to go through that, which is not a quick process. We have started so that we can be sure that we can build a second airport. If we get a favorable record of decision from the process, we will get an adjacent 17,000 acres that would be critical for an airport [as a result of the Clark County Conservation of Public Land and Natural Resources Act of 2002]. I showed you pictures of the city growing up around the airport [pages 2-3]. We are trying to be proactive in keeping the noise factor of the airport away from what will eventually be built around it.

Chair Monroe-Moreno:
It will be interesting to have a second place to land in Las Vegas. A few of our members have questions, but in the interest of time I have asked them to get with you offline.

Marily M. Mora, President and Chief Executive Officer, Reno-Tahoe Airport Authority:
I will give you an overview of the Reno-Tahoe Airport Authority, starting with our governance model [page 2, (Exhibit G)]. We are different than McCarran International Airport. We are an airport authority governed by a nine-member board made up of four members from the City of Reno, two from the City of Sparks, two from Washoe County, and one representative from the Reno-Sparks Convention and Visitors Authority. We are a quasi-municipal organization. As an airport authority, we are very nimble. It has been a great governance model for us. We operate two airports [page 3]. We are the owner and

operator of Reno-Tahoe International Airport (RNO) and Reno-Stead Airport. There are nine passenger and three cargo airlines serving RNO. We have 3 runways, 23 gates, and we operate 24/7.

We are financially self-sufficient [page 4, (Exhibit G)], with 68 percent of our revenue coming from nonairline sources. We have worked hard to do this, because it is important to keep our rates and charges low so that we can maintain airlines and attract new ones. We use no local taxpayer dollars to operate the airport. We are a city unto ourselves, operating our own fire and police departments. Our highest revenues come from parking and rental car operations at the airport.

Most of the time, people do not think about airports being economic engines of the community [page 5]. We are the sixty-third-busiest commercial airport in the United States. We recently updated our economic impact. We generate $3.1 billion per year for Washoe County; $52 million of the economic impact goes into local tax revenues. We have over 4,100 jobs at the airport. About 265 people are Airport Authority employees.

We are proud of the recent flight additions we have made [page 6]. A big win for us was JetBlue service to New York City JFK [John F. Kennedy International Airport] that was a 15-year effort. In 2014 we added Volaris service to Guadalajara, Mexico. With 25 percent of our local population being from the area around Guadalajara, this was a significant addition to our air service. Page 7 is our route map. The red lines represent nonstop destinations; the dotted red lines represent our seasonal nonstop service. There has been a lot of service into Southern California and the San Francisco Bay Area. Getting the flight across the country to New York was particularly important for us.

We had a record year in 2018 [page 8], serving 4.2 million passengers. That was almost a 5 percent increase in our passenger numbers. We had not seen this number since 2008. This means we have had 43 months of passenger growth. We are pleased to see the upswing in our customer numbers.

We have been focused on developing a master plan for the future of the airport [page 9]. We recently completed that master plan, which is our path forward for the next 20 years. It addresses our growth, industry changes, and the FAA going forward. The improvements we want to make include replacing our two concourses; expanding the ticketing area and adding restrooms to the area; and having a new consolidated rental car facility within walking distance of the terminal. It is a win-win for our parking and for our rental car customers.

Page 10 gives you a perspective. In the middle, on the concourses, you can see our first project will be the replacement of Concourse C. To the right you see where Concourse B will be replaced. To the left you see there is an opportunity if we need a third concourse. In the forefront, on the left-hand side, is the consolidated rental car facility that will be within walking distance of the terminal. It will free up parking in the garage. On many days, especially around holidays, we have allowed the rental cars to use part of our parking garage;

therefore, we run out of parking in the parking garage. We will have the opportunity to take back the space in our garage and expand to the north for parking. Our future plans will be good for our local customers and the tourists and business people who come to our area and rent cars.

General aviation is an important part of Reno-Tahoe International Airport [page 11, (Exhibit G)]. Our fixed base operator is Atlantic Aviation. They have made a $15 million investment on the east side of our field. They have a 13,000-square-foot terminal. They have been applauded for the excellent customer service they provide. Dassault Aircraft Services has been a long-term tenant. They do Falcon jet repair and maintenance. We have 100 percent occupancy of our T-hangars. As part of our master plan, we currently have a request for proposal for the development of general aviation facilities on the east side of the airport.

Reno-Stead Airport is a 5,000-acre airport; Reno-Tahoe has only 1,500 acres [page 12]. We opened our new terminal in 2013. It replaced a vintage building from the World War II era. The airfield was designed to commercial aircraft standards. It has an instrument landing system and GPS approaches. There has been more than a $22 million investment and rehabilitation of our runways; one was completed last year.

In 2013 Nevada was named as one of six sites for the development of drones—unmanned aircraft systems. Reno-Stead Airport has hosted four NASA [National Aeronautics and Space Administration] testings. This is where NASA has been developing the traffic management protocols for integrating unmanned aircraft into manned aircraft space. There will be a fifth test in May. There will be a dress rehearsal at Reno-Stead in partnership with the Nevada Institute of Autonomous Systems. They will do a dry run before they actually have drones operating in downtown Reno in cooperation with the City of Reno. In June and July, NASA will turn the lead back to the FAA. The Nevada Institute of Autonomous Systems was picked as one of three projects recently announced by the FAA. There will be preliminary runs at Reno-Stead and drones operating, most likely, along the Truckee River in Reno. It has been great to be at the forefront of this new industry. I am proud to serve on the FAA's Drone Advisory Committee as one of two airport representatives. We have a seat at the table for the development of this new industry and the integration of drones into the manned airspace.

Customer service is what we do, and we have to be mindful of that every day [page 13]. When people come to our airport, they do not make distinctions between the TSA, our airlines, our food vendors, or other vendors serving at the airport. The complaints come back to the airport. We are proud that a recent survey rated us 6.45 out of 7. Overall, people were keen that they had a good sense of safety and security at our airport. We received feedback about what matters to people who use Reno-Tahoe International Airport in seeing it as being a convenient airport. Those are the things we have tried to make a part of our master plan for the next 20 years.

Hearing feedback on food and beverage, a common-use business lounge was opened a little over a year ago [page 14]. The Escape Lounge at Reno-Tahoe is the fourth location for this company. It is available to passengers from any airline. If you hold a Platinum Card from American Express, you can get into the facility at no cost; otherwise, there is a daily fee. A local prominent chef oversees the food and beverages featured in the Escape Lounge. Last December, Vino Volo opened. Vino Volo is located in about 33 airports. When you come up out of our TSA checkpoint, at the top of the escalator you will see Vino Volo. There is a Verdi Market attached to Vino Volo featuring all Nevada products. It provides fresh food to go. Grab-and-go food is something we have to be focused on with airlines not providing food on board aircraft.

[Assemblyman Yeager assumed the Chair.]

In trying to do better with food options, in the spring of this year a Subway will open on Concourse C [page 15, (Exhibit G)]. In our main lobby area before the checkpoint, Harley-Davidson will open a small shop.

Ms. Vassiliadis of McCarran International Airport has been a leader in our industry and the voice saying airports need to be concerned about human trafficking. In a few weeks we will announce that Reno-Tahoe International will be a safe place. As at McCarran, our badged employees will receive training on human trafficking. We will have a video made by one of our airport industry association members that can be used by other airports for training their employees.

Vice Chair Yeager:
Given the time constraints, members may ask questions offline.

Chris "Tank" Johnson, Airport Manager, Minden-Tahoe Airport:
Minden-Tahoe Airport is about 12 miles south of here. We are Nevada's fourth-busiest airport. We are a general aviation airport, meaning we do not have airlines. Unlike McCarran and Reno, 100 percent of my revenue comes from nonairline sources. We are a self-sustaining airport. We have three runways, our largest being runway 16/34. We also have a crosswind runway and a dirt runway. We are home to the Aviation Roundup airshow.

The Minden-Tahoe Airport was built in 1942 as a training base for World War II pilots of the Army Air Corps [page 2, (Exhibit H)]. In 1944 it was bought by Douglas County for $10,000. Considering it is 996 acres, it was a pretty good purchase. One stipulation was that it must always remain an airport, meaning our land cannot be sold or transferred. All of our facilities are on airport leases. In 1964 some glider pilots found the airport, and we became a soaring location.

Today we have over 400 aircraft that stay and operate out of the airport [page 3]. Of those 400 aircraft, 102 are gliders. We are one of the top soaring locations in the world. Between March and late fall, our glider population will double. Visitors come from all over the world just to soar in Minden. We do over 90,000 takeoffs and landings a year. A lot of that is

glider traffic. We have flight training in fixed-wing aircraft and gliders. Often, we have helicopter training. We have an avionics shop, maintenance shop, fixed-base operator—everything an aircraft needs for maintenance and upkeep.

Minden is one of the top three soaring locations in the world [page 4].

[Assemblywoman Monroe-Moreno reassumed the Chair.]

Pilots come from around the world just to soar in Minden. The thing that makes it an ideal soaring location is the mountain wave—the mass of air that comes over the mountains continues in a wave form. Regularly, our gliders will take off from Minden, catch the wave, and stay up along the Sierra Front going from Bishop up to Susanville. They will go back and forth, staying up there for six to eight hours during the day. We had one glider pilot depart from Minden, trying to fly to Rapid City, South Dakota. He got to the southern border of South Dakota where he ran into a weather system, so he did not make it to Rapid City.

We are home to the Perlan 2 project. The Perlan 1 was an unpressurized glider flown by Steve Fossett that went up to 62,000 feet. The Perlan 2 is a pressurized glider that will go up to 95,000 feet. Last year they broke all of the records by reaching 76,000 feet. For comparison, airlines fly at around 37,000.

In addition to general aviation and flight training, we have skydiving [page 5, (Exhibit G)]. Our skydiving operation is not training; it is completely tourism. If skydiving is on your bucket list, you can be strapped to a jump instructor and dropped out of an airplane.

We are home to a fire attack base [page 6]. This is a valuable asset in the region. We have the fire attack facilities so when aircraft are deployed into the area to fight fires, we can support and help them in their mission. We also have the Sierra Front Interagency Dispatch Center, the dispatch point for all the fire attack aircraft operating in the Sierra Front. The Division of Forestry [of the State Department of Conservation and Natural Resources] has a base with four UH-1 Hueys [Bell UH-1 series Iroquois].

One of our biggest and most important missions at the airport is community outreach [page 7]. Right now, aviation is in trouble. We are running low on pilots. We are trying to get children interested in aviation so they do not just look at their cell phones to fly drones, but want to fly aircraft. We have a number of outreach programs through science, technology, engineering, and mathematics. Sixth grade aviation days bring all of Douglas County sixth graders out to the airport, introducing them to different aspects of aviation. The Youth Aviation Adventure is a similar program for other students. It is a roundtable event. The students go to various stations to learn about different aspects of aviation. We also have our Build-a-Plane program for high schoolers. Students, under the supervision of adults, actually build an aircraft that will be certified to fly and be licensed. Once it is completed and flown, it will be sold to pay for a new kit for the next group of students in the Build a Plane program. For the past eight years, we have had these ongoing youth programs.

We hold a biennial airshow called the Aviation Roundup [pages 8-9]. It is a collection of aviation events. The airshow is the largest part of it. Last year we hosted the United States Navy Blue Angels team; the two previous shows we hosted the United States Air Force Thunderbirds. The Thunderbirds will be returning for the 2020 show. One of our points of pride is that we have had people question whether northern Nevada had jet teams perform; from 2015-2020, either the Reno National Championship Air Races or Minden's airshow has had one of the jet teams. We are a popular destination for airshows.

Airport management equals asphalt management [page 10, (Exhibit H)]. We have to maintain the asphalt, otherwise we cannot fulfill our mission. The FAA's Airport Improvement Program makes that possible by providing funding to eligible airport projects that enables us to build and put in the capital improvements we need without facing the overwhelming costs involved [page 11]. The federal funding will pay for 93.75 percent of a project; the airport has a 6.25 percent local match. Through this program, over the last two years we rehabilitated Runway 16/34, our taxiways Bravo, Charlie, Sierra, and our heavy ramp. The total cost of the project was $709,000. The FAA paid $665,000 and our cost was $44,000 [page 12]. You can see from that what a benefit the program is to our airports. Our east side apron is the staging area for gliders, a key element of our glider operations [page 13]. The apron was failing. We replaced the apron at a total cost of $2.3 million of which the airport was responsible for $144,000. We had deer wandering across the airport. We did a wildlife study that determined we needed a larger fence [page 14]. We put up an eight-foot-tall wildlife fence around the airport—about eight miles of fence. We also redid our lighting, switching our runway lights to high-intensity lighting in anticipation of a precision approach into the runway. The total cost of the project was $4.1 million; our cost was $257,000. One of the biggest dangers on an airport is FOD, foreign object debris, which is anything left on the asphalt that an airplane engine can pick up and throw around or that can be sucked into a jet engine. That causes foreign object damage. As a result, our airfield sweeper is a key piece of equipment for keeping our asphalt clean [page 15]. The total cost of the four projects I identified was $7,299,632.33 [page 16]. Our total share was $456,277.83. You can see how valuable the Airport Improvement Program is to us.

Unfortunately, a lot of Nevada's smaller airports and rural airports cannot make that match [page 17]. If they lose out on the money by not making the match, their facilities and infrastructure will fail. Unlike roads where cars can drive on potholes, runways and taxiways cannot have potholes; aircraft cannot handle them. We have a limit to the degree our asphalt can degrade before it has to be repaired or before it fails. A lot of our smaller airports cannot do that. Fortunately, Nevada authorized the Aviation Trust Fund in 2005 [page 18]. It is managed by the Nevada Aviation Technical Advisory Committee and provides $100,000 for airports' local match for improvements and repairs.

Chair Monroe-Moreno:
We will now take public comment.

Athar Haseebullah, Private Citizen, Las Vegas, Nevada:
I am also an active member of the community and an advisor for the Alpha Men and Divas of Tomorrow youth group. Last week nine of our youth toured the capital and attended the Assembly Committee on Growth and Infrastructure hearing on Thursday. I want to personally thank the members of this Committee for indulging us. We heard tremendous feedback from all of our youth. Two groups participated—the Alpha Men and Divas of Tomorrow, my fraternity's youth group, and the Capital League youth group which is Clark County Commissioner Lawrence Weekly, Attorney General Aaron Ford, and Assemblyman Frierson's youth group. Each of the youth expressed this was a highlight of their lives. They were particularly thankful that many members of the Assembly took the time to chat with them. Assemblymen Leavitt and Watts and Assemblywomen Hardy and Backus each took different periods of the day to have conversations with them. After two of our students sat at the table during the Regional Transportation Commission of Southern Nevada's presentation, we asked them if it affected their perception of what they want to do as a career. They said it did. We asked one of the young ladies what she wanted to be when she grows up. She said she wanted to be Daniele Monroe-Moreno. I want to express my deepest gratitude to the Committee for doing that for our youth.

Chair Monroe-Moreno:
The young lady stopped by my office and sat in my chair. I asked her what she thought. She replied that it was going to be her seat. We enjoyed having the groups in the building. We hope to have twice as many youth come next session.

This meeting is adjourned [at 4:01 p.m.].

RESPECTFULLY SUBMITTED:

_____
Joan Waldock
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 titled "Southwest Gas Assembly Committee on Growth and Infrastructure," dated February 26, 2019, presented by Scott Leedom, Director, Public Affairs, Southwest Gas Corporation, and Debra Gallo, Director, Regulatory Projects, Southwest Gas Corporation.

Exhibit D is a copy of a PowerPoint presentation titled "Assembly Growth and Infrastructure Committee Energy Briefing," dated February 26, 2019, presented by Douglas A. Cannon, President and Chief Executive Officer, NV Energy.

Exhibit E is a copy of a PowerPoint presentation titled "Nevada Rural Electric Association Representing Nevada's Rural Electric Cooperatives, Power Districts, and Municipal Utilities, Prepared for the Nevada State Assembly Growth & Infrastructure Committee," dated February 26, 2019, presented by Richard "Hank" James, Executive Director, Nevada Rural Electric Association.

Exhibit F is a copy of a PowerPoint presentation titled "Las Vegas McCarran International Airport Update," dated February 26, 2019, presented by Rosemary A. Vassiliadis, Director of Aviation, Clark County Department of Aviation.

Exhibit G is a copy of a PowerPoint presentation titled "Reno-Tahoe International Airport: Giving Lift to the Region Assembly Growth and Infrastructure Committee," dated February 26, 2019, presented by Marily M. Mora, President and Chief Executive Officer, Reno-Tahoe Airport Authority.

Exhibit H is a copy of a PowerPoint presentation titled "Minden-Tahoe Airport Douglas County Nevada," presented by Chris "Tank" Johnson, Airport Manager, Minden-Tahoe Airport.