MINUTES OF THE
SENATE SELECT COMMITTEE ON ECONOMIC GROWTH AND EMPLOYMENT

Seventy-sixth Session
February 21, 2011

The Senate Select Committee on Economic Growth and Employment was called to order by Chair Ruben J. Kihuen at 1:07 p.m. on Monday, February 21, 2011, in Room 2134 of the Legislative Building, Carson City, Nevada. The meeting was videoconferenced to the Grant Sawyer State Office Building, Room 4412, 555 East Washington Avenue, Las Vegas, Nevada. Exhibit A is the Agenda. Exhibit B is the Attendance Roster. All exhibits are available and on file in the Research Library of the Legislative Counsel Bureau.

COMMITTEE MEMBERS PRESENT:

Senator Ruben J. Kihuen, Chair
Senator John J. Lee, Vice Chair
Senator Valerie Wiener
Senator Mark A. Manendo
Senator Don Gustavson
Senator Ben Kieckhefer
Senator Greg Brower

STAFF MEMBERS PRESENT:

Kelly Gregory, Policy Analyst
Bryan Fernley-Gonzalez, Counsel
Leslie Sexton, Committee Secretary

OTHERS PRESENT:

Randy Lavigne, Hon. AIA, Executive Director, American Institute of Architects Nevada
Edward Vance, AIA, Director of Western Mountain Region, American Institute of Architects Nevada
Eric Roberts, AIA, American Institute of Architects Nevada
Walt Borland, Executive-in-Residence, Nevada Institute for Renewable Energy Commercialization

CHAIR KIHUEN:
Our first presentation is from the American Institute of Architects, represented by Randy Lavigne.

RANDY LAVIGNE, Hon. AIA (Executive Director, American Institute of Architects Nevada):
I have submitted my opening remarks (Exhibit C). Edward Vance will lead us through the Envisioning Nevada's Future, an illustrated PowerPoint presentation.

EDWARD VANCE, AIA (Director of Western Mountain Region, American Institute of Architects Nevada):
I have submitted a copy of my PowerPoint presentation (Exhibit D). My page references refer to that document. This presentation does not have all the answers to diversifying our economy and solving the budget problem. It may paint a road map that could give guidance for the future. We have read the *Envisioning Nevada's Future* document that was prepared for the Nevada Vision Stakeholder Group by Moody's Analytics last year. We are providing illustrations to complement that document.

Tourism and mining are our main economic engines in Nevada. Relying on these two industries alone will not be enough for the future. Neither can we forget about them. Our mission in this presentation is to focus on diversifying the economy. We considered three strategic areas: multimodal transportation, page 3, including high-speed rail, cargo freight and bus rapid transit; health care tourism, page 7; and research and development, page 16, including technology, renewable energy and biotechnology.

The slides on pages 3 to 7 outline our vision and some challenges in improving our transportation systems and thus our overall economy. McCarran Airport in Las Vegas is adding eight gates to its international terminal. These terminals will serve tourists and cargo arriving from around the world. Once that cargo arrives, it will have to be transported overland throughout our region. Our conclusion is that the unique position in which Nevada—specifically Las Vegas—sits between the Pacific Coast and the Intermountain West presents an exclusive opportunity for our community to advance as a regional destination. By centering a variety of transportation linkages in Las Vegas, our economic and civic well-being will be forever integrated with the long-term success of our region.

A transportation corridor we have not illustrated in Exhibit D is the I-11 corridor, commonly referred to as the CANAMEX Trade Corridor, established by Congress in the 1995 National Highway Systems Designation Act. It runs from the Mexican border at Nogales, Arizona, through Las Vegas, Salt Lake City, Utah, Idaho Falls, Idaho, and through Montana to the Canadian border following I-15. Once cargo arrives in Las Vegas by air, it usually needs to go somewhere. The last portion of the CANAMEX needs to be completed between Las Vegas and Phoenix, Arizona. We need to cooperate with Arizona to get that done.

The slides on pages 7 to 15 illustrate our existing base, our vision and the community and economic impacts of the health care tourism industry in Nevada. Health care tourism can best be described as "the business of traveling domestically or abroad to seek out the best quality care for medically necessary and elective procedures."

We have a great base of medical institutions on which to build an economic engine for health care tourism. The Cleveland Clinic Lou Ruvo Center for Brain Health will serve as a catalyst for other Cleveland Clinic components. The University of Nevada School of Medicine in Reno is providing valuable human capital for the future growth of health care tourism. Touro University has over 1,500 students. Many of their programs are the first of their kind in Nevada. The Nevada Cancer Institute in Las Vegas is already on its fourth expansion in ten years. The Whittemore Peterson Institute for Molecular Medicine in Reno is the first new life sciences building constructed at the University of Nevada, Reno, in nearly 30 years. This is also a great example of buildings that put architects, engineers, contractors, suppliers and manufacturers back to work When architects are busy, the rest of the Country is also busy.

Las Vegas has Symphony Park, the location of the Cleveland Clinic Lou Ruvo Center for Brain Health, which will soon be the home of several world-class boutique hotels. We can attract other well-known medical providers. Those include St. Jude's Children's Hospital, the University of Texas MD Anderson Cancer Center, Scripps Health, the Mayo Clinic and Johns Hopkins Medicine. We need to change the mental attitude and perception that Nevada is not a great place for health care. Marketing will be necessary. Our health care providers must provide prices that appeal to a patient paying all or part of their bill, quality care and a breadth of specialties. Medical and nonmedical spending in health care tourism has a significant impact on local economies. Communities

need to plan health care clusters to attract providers and improve Nevada's reputation for quality health care.

The slides on pages 16 to 31 illustrate our focus on research and development in technology, including renewable energy and biotechnology. There is recent literature about the emerging importance of lithium. Nevada is the only one of the 50 states where lithium is mined. One of the key components of a renewable energy system is lithium batteries.

Nevada has already demonstrated the ability to take the lead in mining technology and gaming technology. Our future goal must be to reduce the volatility of our economy by diversifying the leading industries. The slide on the top of page 18 illustrates the fact that Nevada experienced the worst downturn in the economy and the highest volatility in our region. The latter was true even ten years ago. Unless we have a broad range of companies and manufacturing cores, we will be saddled with one or two industries that will ultimately promote that same kind of volatility. We are looking to leverage our natural resources and existing infrastructure to attract technology-producing and green industries. The slide on the bottom of page 18 talks about those resources and that infrastructure. The transportation networks have to be in place in order to attract business. Recently, I read that Las Vegas ranks third in the list of cities in the United States where it is predicted that the economy will rebound quickly. This is due to the infrastructure in which we have already invested over the last 15 years. We must maintain that edge.

The slide on the top of page 19 shows Nevada's standing among our neighboring states in attracting venture capital. More than $6 trillion sits on the sidelines, waiting for investment. Shareholders are pressuring fund managers to invest. We are far behind Utah, Arizona and Oregon. Our goal is to grow venture capital investments to $300 million in Nevada. The slide on the bottom of page 19 and the slides on page 20 outline three strategies for accomplishing this goal. Through local and statewide economic development agencies, the State should create and coordinate an investment council that would market itself to venture capitalists. We should offer incentives for companies to relocate to Nevada. Development agencies must stop competing with each other and cooperate and coordinate their efforts.

Members of the AIA Nevada Task Force identified three specific industries to attract to Nevada: technology, renewable energy and biotechnology. The slides on pages 21 to 23 have information relating to our existing base of technology: Switch X, Plus 6 Technologies, IBC Tech Nevada, Inc. and H.P. White Laboratories. On the top of page 25, you see a chart showing total annual high technology operating costs in 12 states. Nevada is at the bottom of the list at $27,367,940, with New York on the top at $38,217,359. This is a good thing for attracting companies to Nevada. There are potential technology companies we could attract, including Texas Instruments, Apple, Hewlett-Packard, Intel, Dell Computers, IBM, Microsoft, Motorola, Cisco Systems and Oracle.

The slides on pages 23 to 29 review the existing base in renewable energy: solar, wind and geothermal. Nevada is a perfect place for all three power sources. The solar energy companies include Acciona Energy, Ausra and First Solar. First Solar has just acquired the first large-scale solar energy plant in the Country that will be located near Primm. That plant is expected to create approximately 300 new jobs. There is also a list of potential solar energy companies we could attract, including Siemens and Spire. The wind energy companies currently in Nevada include Nevada Wind Company and Windspire Energy, formerly Mariah Power. Of the ten leading wind turbine manufacturers that would be potential companies to attract, only one is located in this Country.

Nevada has two major geothermal companies: Nevada Geothermal Power Inc. and Ormat Technologies, Inc. We have identified four companies that we could attract to Nevada: Raser Technologies, Calpine Corporation, U.S. Geothermal Inc. and Altarock Energy Inc.

Pages 30 to 31 are about our biotechnology base and the companies we could attract to Nevada. Our base includes NPDL BioPharma, CardioVascular BioTherapeutics, IDEXX Laboratories, Sierra Sciences, Radiant Research and Charles River Laboratories. Biotechnology companies we could attract include Amgen, Genentech, Serono, Biogen Idec, UCB-Celltech, Genzyme, Gilead, MedImmune, Chiron and Millennium.

As we were completing this report, we realized that without an educated workforce, very few of the goals we have outlined can be met. Education became our fourth focus area. In the slides on pages 33 to 38, we have outlined

strategies to raise educational attainment in Nevada. Those strategies relate to elementary, secondary and university systems. We must improve our high school graduation rate. Nevada is at the bottom of that list. We must encourage higher education. Our objective should be to enroll more children in early childhood education programs and invest in those programs. We must broaden student engagement by lowering the pupil-to-teacher ratio. This will involve attracting good teachers and nurturing and extending their skills. We need to bring high school achievement levels up to at least national averages. Nevada is toward the bottom of the state rankings. It will also be necessary to increase communication with parents and expand English Language Learner programs.

We must promote low-energy and healthy green schools because it has been shown that daylighting and improved indoor air quality has been proven to increase attendance and improve standardized test scores while minimizing operating costs. When the buildings are actually contributing to the learning experiences, we move beyond bricks and mortar.

We should also work to improve college graduation rates in fields related to growth industries and stabilize higher education funding. Universities should have more control over the tuitions collected. We should raise the level of university research that will contribute to our State's economic diversity.

The slide on the top of page 39 illustrates that a sustainable economy requires smart government, capital, industry, technical commercialization, human capital and talent, and research universities.

SENATOR LEE:
Did local architects work on Symphony Park and the Cleveland Clinic Lou Ruvo Center for Brain Health in Las Vegas? We can encourage all the business in the world, but then again you are unemployed. I have a bill pending to work with the engineers for a 5 percent bidder's preference as long as one also works alongside a contractor from Nevada who gets a 5 percent preference. There cannot be someone from out-of-town—you get 5 percent because you work for the out-of-town guy. What is your opinion on that?

MR. VANCE:
We have been dealing with that for years. We have had many great buildings done in Las Vegas. People have come in from Colorado, Utah and Arizona

competing for that work. We try not to complain too much. There is good and bad in all of it. When a building designed by a well-known architect is built, it raises awareness of architecture in general. We find some peace in that. When projects go to architects who do not have the same significance that the designer of a brain center has, such as one of our government centers or a city hall, those become a thorn in our sides. As a group, we are for this preferential issue. We see you working to raise money to create jobs in this State. We do not like to see that money go to an out-of-state firm.

SENATOR LEE:
In that case, it is not too late for us to work together to include architects in the pending legislation.

ERIC ROBERTS, AIA (American Institute of Architects Nevada):
It is prohibited by *Nevada Revised Statutes* to contract architects by price. They must be contracted by qualifications first. Price can be negotiated later. This was discussed in the Assembly leading up to passage of recent legislation. We have discussed the possibility of a tax on out-of-state services firms. That tax would be passed on to those who procure the service rather than on the firms themselves, thereby discouraging them from procuring it out-of-state.

CHAIR KIHUEN:
Your presentation mentioned the high-speed rail. We have been working on that for many years in Nevada. Why has it not happened?

MR. VANCE:
At the recent Preview Las Vegas 2011 conference in Las Vegas, Dr. Robert Lang discussed this. The Cajon Pass is really the bottleneck on the route from Los Angeles to Las Vegas. This route is heavily traveled on weekends. Dr. Lang said we need to think about a park-and-ride facility in Victorville, California, avoiding travel for over 200 miles and through Cajon Pass. He advised that we at least start with a high-speed rail from Victorville to Las Vegas. No one can argue that rail is the most efficient, per energy unit, mode of transport for people and goods over a long distance.

SENATOR MANENDO:
In the late 1980s, there was a conference in Las Vegas on high-speed rail from Los Angeles to Las Vegas. The comments you made today are the same

comments we heard at that time and repeatedly since then. The issue is money. I also think about our future. I think about what other countries are doing and how they surpass us in transportation advances right now. We should not wonder why we have commerce problems in this Country. We must make more progress in transportation and put people back to work soon.

MR. VANCE:
One of my colleagues tells me that the major challenges with the high-speed rail from Victorville to Las Vegas have been cost, environmental approvals and obtaining rights-of-way. Our Congressional Delegation can be of assistance with interstate communication and cooperation. It does not help our cause to hear that the current national rail system loses $1 billion per year due to inefficient management. With so many people traveling the proposed route, it will operate at a profit.

WALT BORLAND (Executive-in-Residence, Nevada Institute for Renewable Energy Commercialization):
I have submitted a copy of my PowerPoint presentation entitled Accelerating Economic Innovation in Nevada (Exhibit E). All page references refer to this exhibit. Economic innovation is defined on page 2 as the formation of new enterprises around the development of intellectual property. We have seen dramatic changes in our Country and our State. Many jobs in manufacturing and service areas have moved overseas. Innovation will be our differentiator moving forward. Innovation includes new technologies and process improvements. Innovation is driven through interactions amongst evolving clusters of competencies without regard to organizational constraints. It is also driven through interactions amongst individuals within and between evolving organizations.

The former driver has to do with the things we do well already. Many of the stage shows in Las Vegas require a high level of engineering and technology. Those skill sets can be widely applied where sophisticated engineering is required. We need to assess our areas of competencies and find wider applications for them. The latter type of innovation driver is all about people interacting across lines they might not ordinarily cross. The economic impact of innovation is created through the commercialization of innovation. The academic world is about teaching, research, publishing and patents. Commercialization goes beyond these things. It is not passive. Commercialization involves knowing

what is happening in the larger marketplace, understanding where demand is and where revenue-generating opportunities are, and getting people who have a vision about how to create companies and take that technology another step. It is about encouraging research institutions to think about how those technologies can contribute to a better state, a better country, a better world and result in the formation of new enterprises and new jobs. Innovation requires the flow of ideas and the availability of capital. It requires that the public and private sectors work well together. If we do not innovate in the global economy, we risk economic stagnation.

Page 3 outlines economic innovation efforts in Nevada. Such efforts have been fractured and underfunded. Small amounts of money would make significant differences in those efforts.

Page 4 lists six transformational steps that would help to accelerate economic innovation in Nevada. Pages 5 to 7 detail those steps.

Vision is a challenge when the environment for innovation is so fractured. One of the mistakes we make is that after a legislative session is adjourned, we do not act upon the data and recommendations we have discussed. Focus is necessary to leverage scarce resources. Any entity can perform a limited number of tasks better than trying to be mediocre with more of them.

Nevada does not need another state's initiative. Nevada needs its own initiative, its own unique solution incorporating our strengths and weaknesses. The examples we have discussed from other states were all begun by state government initiatives. They have been public-private partnerships. There is a critical role for government to play at time like this. It is to help put the mechanisms in place that can get us somewhere better than we are.

As a businessperson, my objectives are to maximize revenue, minimize expense and drive profitability in a way that is ethical, moral, and legal. My objective is not to save a state, a country or the world. I have a board of directors. I have investors. I must drive the numbers. Government has a broader charter it must exercise to make a difference. Now is a perfect opportunity for the government of Nevada to do that.

We do have clearly compelling targets of opportunity. Mining is our oldest industry. We have deposits of minerals that are critical to a twenty-first century economy. My recent experience was as the CEO of a company now called Windspire Energy. One of the critical components of a vertical-access wind turbine is a set of rare-earth magnets. Ninety-five percent of rare-earth magnets come out of China. I had to shut down a production line because I could not get product out of China when the Chinese government was upset with the United States government. The Chinese threatened a World Trade Organization action because the United States military started stockpiling rare-earth minerals in very large quantities. There is a mine in California that at one time enabled the United States to be self-sufficient in rare-earth metals. There are rare-earth metals, lithium and neobendyum, in Nevada. Mining will be as critical tomorrow as it was yesterday. We need to determine how to best leverage these opportunities.

SENATOR LEE:
Up until a year ago, we were losing jobs in lithium mining because lithium was not considered valuable. The market has to demand the price and the value. It has not been there for the last 20 years. If it was not for the United States government currently investing in lithium, there would not be a high demand.

MR. BORLAND:
You are correct. An example is rare-earth metals. The reason production was decreased in the United States was because the Chinese undercut the price. It was no longer economically feasible to produce those metals in the United States. As a result of the growth in demand for rare-earth metals, which will also happen with lithium, the Chinese decided to impose export quotas to try to force companies to value manufacture in China rather than export raw materials to the United States. That market situation has changed. As a businessperson, I am intimately familiar with point of supply and demand. However, when you look forward, the demand for those minerals will only become more important. The challenge as a businessperson is to figure out when, how much and how to manage the business to the extent of the existing market opportunity at any given point in time.

SENATOR LEE:
Our trade agreements seem to control that more than our business models.

MR. BORLAND:
In some cases, that is true. In a case where you have a dominant supplier of any given strategic mineral, you have an artificial situation. It is not true with supply and demand. When you have a supplier of 95 percent of the world supply of a given material, it is not an open market.

Our research institutions are of vital importance in focusing commercialization efforts. These institutions are the engines of innovation. They have driven every initiative across this Country. If we do not make the necessary investments in those institutions, we will pay a price for that failure. We need to find the best possible way to invest in higher education.

On page 6, we refer to innovation centers. These need to be established around areas of competency to bring people together and to foster collaboration that will lead to innovation and jobs. This collaboration may include physical location or consolidation. Last week you heard Dr. Stephen Wells talk about Nevada System of Higher Education's (NSHE) Renewable Energy Consortium, which is a perfect example of encouraging collaboration.

On page 7, we talk about funding that will facilitate an increase in impact while also leveraging third-party funding sources. There is no way that the State will ever be able to provide the level of resources available in the private sector. However, very small amounts of State funds can be leveraged successfully to have a significant impact.

Last week, you heard from the economic development organizations. One of the statistics that Somer Hollingsworth, President of the Nevada Development Authority (NDA), cited was that the Las Vegas Convention and Visitors Bureau spent $100 million on marketing and the hotel industry spent $200 million on marketing. Then he pointed to the budget of NDA, which had allocated just a fraction of that amount to marketing.

Imagine if we could spend a little bit more, a fraction of those numbers, on economic development. This is something that impacts the entire State and has a multigenerational impact. We can spend $300 million with two organizations. This excludes the marketing budgets from all of the other properties in Las Vegas and the rest of the State. We should be able to find $10 million,

$20 million or $30 million to market our State to build a better future, to diversify the economy and create new jobs.

Many of the organizations in the State are struggling. At the same time, we must find a way to make limited investments that generate those multipliers, engage the private sector and better leverage the federal sector.

President Obama's 2012 budget request contains a $600 million appropriation for the Nevada National Security Site, formerly the Nevada Test Site. That is one-half the amount of the budget of NSHE. By one estimate, 1,200 Ph.Ds are associated with that facility. How can we better leverage that resource that comes from the federal government?

It is critical in building a new economy to have some type of sustained source of funding that can serve as a catalyst in order to move these initiatives forward.

My predecessor at the Windspire Energy Company moved manufacturing from Nevada to Michigan. When I joined that company, Michigan was in the process of putting together an economic development package to provide funds for the construction of a new plant in Michigan. The total of the incentives in that package was greater than the budget of the Commission on Economic Development. That is commitment to change. That is something that we, relative to our size and capabilities, must find a way to do.

The sixth point on page 4 refers to strengthening Venture Accelerators to drive the formation of new enterprises. These are the entities that actually create new businesses. Nevada Institute for Renewable Energy Commercialization and C4CUBE are examples of such accelerators.

Many organizations listed on page 8 are doing great things under very challenging circumstances. They should be recognized and supported.

The key to economic innovation is collaboration. Page 9 lists five components of successful collaboration. We must identify what types of assets currently exist, pull them together across geographic and organizational boundaries, build a critical mass of talent and expertise, leverage public and private resources, and celebrate and recognize the achievements of our top researchers to the

degree we celebrate sports stars. There are over 60 critical, leading-edge research facilities in the State that can be leveraged to make a difference.

Page 10 lists 11 states in which successful economic transformations have taken place as a result of innovation. There are many more states and foreign countries that have done the same. If they can do it, so can Nevada. We are uniquely Nevada, and we must find a unique solution that works for us.

CHAIR KIHUEN:
Seeing no questions, we are adjourned at 2:20 p.m.

RESPECTFULLY SUBMITTED:

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Leslie Sexton,
Committee Secretary

APPROVED BY:

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Senator Ruben J. Kihuen, Chair

DATE:_____

EXHIBITS			
Bill	**Exhibit**	**Witness / Agency**	**Description**
	A		Agenda
	B		Attendance Roster
	C	Randy Lavigne	Opening Statement
	D	Edward Vance	Envisioning Nevada's Future
	E	Walt Borland	Accelerating Economic Innovation in Nevada