



NEVADA LEGISLATURE JOINT MEETING OF THE JOINT INTERIM STANDING COMMITTEE ON NATURAL RESOURCES AND THE JOINT INTERIM STANDING COMMITTEE ON GROWTH AND INFRASTRUCTURE

(Nevada Revised Statutes [NRS] 218E.320)

DRAFT MINUTES

March 25, 2026

A joint meeting of the Joint Interim Standing Committee on Natural Resources (JISC NR) and the Joint Interim Standing Committee on Growth and Infrastructure (JISC GI) for the 2025–2026 Interim was held on Wednesday, March 25, 2026, at 9 a.m. in Room 1214, Northern Nevada Legislative Building, 401 South Carson Street, Carson City, Nevada. The meeting was videoconferenced to Room 165, Nevada Legislature Office Building, 7230 Amigo Street, Las Vegas, Nevada.

The agenda, minutes, meeting materials, and video recording of the meeting are available on the [JISC NR's meeting page](#). The video recording may also be found at <https://www.leg.state.nv.us/Video/>. Copies of the video record can be obtained through the Publications Office of the Legislative Counsel Bureau (LCB) (publications@lcb.state.nv.us or 775/684-6835).

COMMITTEE MEMBERS PRESENT IN CARSON CITY:

Assemblymember Natha C. Anderson, Chair, JISC NR
Assemblymember Rich DeLong
Assemblymember Bert K. Gurr

COMMITTEE MEMBERS PRESENT IN LAS VEGAS:

Assemblymember Howard Watts, Chair, JISC GI
Senator Michele Cruz-Crawford, Vice Chair, JISC NR
Senator Rochelle T. Nguyen, Vice Chair, JISC GI
Senator Julie Pazina
Assemblymember Max E. Carter II
Assemblymember Venicia Considine

COMMITTEE MEMBERS PRESENT IN LAS VEGAS (CONTINUED):

Assemblymember Jovan A. Jackson
Assemblymember Venise Karris
Assemblymember Heidi Kasama
Assemblymember Jason Patchett

COMMITTEE MEMBER ATTENDING REMOTELY:

Senator John Ellison

COMMITTEE MEMBERS ABSENT:

Senator Carrie Ann Buck (Excused)
Senator Fabian Doñate (Excused)

LEGISLATIVE COUNSEL BUREAU STAFF PRESENT:

Becky Peratt, Senior Policy Analyst, Research Division
Keely Latham, Senior Policy Analyst, Research Division
Anthony Ciaramella, Senior Policy Analyst, Research Division
Jen Jacobsen, Research Policy Assistant, Research Division
Terese Martinez, Research Policy Assistant, Research Division
Jeffrey Chronister, Deputy Legislative Counsel, Legal Division
Daniel Delap, Deputy Legislative Counsel, Legal Division
Lauren Spratt, Deputy Legislative Counsel, Legal Division

Items taken out of sequence during the meeting have been placed in agenda order.
[Indicates a clarification.]

AGENDA ITEM I—CALL TO ORDER

Chair Anderson:

Good morning and welcome to the joint meeting of the Joint Interim Standing Committee on Natural Resources and Joint Interim Committee on Growth and Infrastructure. Secretary, will you please call the roll?

[Roll call was taken and reflected in Members Present.]

Chair Anderson:

If you would, please mark Senator Doñate and Senator Buck as absent, excused.

Before we begin, a few housekeeping announcements. Please remember to silence your cell phones, and the agenda for today is posted. Please note that agenda items may be taken out of order, combined, or postponed, and we do have an item today that will be taken out of order due to scheduling issues.

Members of the public, if you would like to receive email notifications when meeting materials are posted on the Committee's web page, you can sign up for that on the Nevada Legislature website. You might see some of us using laptops to follow the presentations. Please do not take that as a sign of disrespect.

I would also like to announce that the Solicitation of Recommendations for the Joint Interim Standing Committee on Natural Resources has been posted to the Committee web page. Any individuals or entities who would like to submit a BDR [bill draft request] suggestion to NATRAM, or Natural Resources, please take a look at this information and submit your recommendations by July 1, 2026. Again, this is only for Natural Resources.

And finally, as we all know, this meeting is focused on data centers. Internally, I have started calling it "Datapalooza." I think it will be clear after we hear from NCSL, or National Council of State Legislatures, that many states are looking at data centers, and here in Nevada, the interim provides the forum for us to have these conversations. And while there are many aspects we could discuss—land use, public health, workforce, revenue, the economy—Chair Watts and I have decided to hold a joint meeting so that we can focus on the connections between energy needs and water use. That is it. Energy needs and water use. If a presentation were to occur that starts to go into other areas, I will cut that off.

The meeting will be longer than most, so I appreciate everyone being here and setting in for a potentially long day. I anticipate breaking for lunch sometime around 12:30 for about a half hour, but we will see how things are running as we get closer to the afternoon.

Finally, I would like to thank LCB Research and our entire staff for helping us organize today's meeting, compiling some incredible background information for us. The background memo is available on the Committee web page and is just intended to provide some very high-level basic information. It does not go into specific details prior to today's presentations.

AGENDA ITEM II—PUBLIC COMMENT

Chair Anderson:

With that, let us begin with our first item on the agenda, public comment. During the interim, we have two opportunities for public comment, once at the beginning of the meeting and once at the end. Members of the public can provide testimony in person, over the phone, via email, or by mail. Instructions are provided on the agenda. If you are testifying in person, please remember to sign in at the table by the door. Please remember to clearly state and spell your name before you begin and limit your comment to two minutes. Staff will time each speaker during public comment to ensure everyone has a fair opportunity to speak. And also, there is nothing wrong with saying "ditto." If you wish to provide public comment over the phone, the number is (888) 475-4499. The meeting ID for today is 876 1103 2529 and then press the pound key. Press the pound again if asked for a participant ID. We will start here in Carson, and if anyone would like to give public comment, please come to the table at this time.

Ellie Waller, Resident, Douglas County, Nevada:

Good morning. My observation after reading the documentation provided to this Committee with one report stating 712 in Washoe, 70 in Storey, and 426 in Clark County already exist. These data centers—this is 713 operational in Nevada now. There are 495 under construction and a whopping 5,914 in planning phase with little to no governance that could result in environmental and resource impacts in various counties. That is 7,122 approximately total that require oversight. How long have the operational centers existed? Where are they actually located, not just stated in the existing mapping? How many are under construction and where? And how many are in the planning phases and where are they going to be located? Are local officials aware of these statistics and have they provided information to their constituents? Also remember that there is an Alpine Decree and a Truckee River Operating Agreement that must be addressed and honored. Northern Nevada and southern Nevada are different in governance; local codes of ordinances vary on zoning considerations that also must be taken into consideration. I will close with—will Nevada create an oversight committee to monitor resource environmental impacts and, along with and equally important, human impacts that have been identified in various reports? Thank you. ([Agenda Item II A](#))

Bari Levinson, Member of the Public:

Good morning, Chairs Watts and Anderson, and members of the Committee. I am a volunteer with Sierra Club Toiyabe Chapter, but these comments are my own. Thank you so much for having this hugely important joint meeting on data centers. I have spent the past year, and a half studying the issues around data centers and have some real concerns. As you probably are aware, data centers are coming like a tsunami to Nevada, especially northern Nevada. They are coming for a variety of reasons, including relatively inexpensive land, relatively inexpensive electricity, supposedly plenty of water—although I would take issue with this assumption—minimal regulations, and very importantly, the infrastructure, including fiber optic cable that connects directly to Silicon Valley.

The potential harms of data centers are many, including risks to our electricity grid, water supply, air quality, and climate. NV Energy has stated that it will need to triple or quadruple its energy production, primarily using gas power plants, to meet the demand over

the next several years just to supply data centers. In addition to the greenhouse gas emissions, these power plants require vast amounts of water, much more than is required for data center cooling. And air quality will suffer due to the power plants and the backup diesel generators that are currently being used.

We must begin to enact policies that mitigate the harms that data centers pose. One elegant solution in Nevada is the new Clean Transition Tariff recently enacted by the PUCN [Public Utilities Commission of Nevada] that Sierra Club worked on during rulemaking. This is a new rate structure for large load businesses that will pay NV Energy to construct new renewable energy generation to be used solely for that business. This helps to avoid cost shifting to other customers and avoids the greenhouse gas emissions from fossil fuel plants. We could also mitigate the air pollution from backup generators by requiring that they be battery-powered rather than diesel.

Thank you again for taking up the data center issue as there are tremendous implications for our air, our water, our climate, and our pocketbooks. Thank you. ([Agenda Item II B](#))

Josh Hebert:

[Inaudible] I think it is essential that we have more public education on this issue, so people understand it. My primary concerns have to do with water and power. We know that these data centers require huge quantities of water, especially when they are using the evaporative cooling. I think in desert states like Nevada, we need to have regulations to ensure that they are required to use a closed loop system or an immersion system, so they are not having so much impact on our water usage. I would like to second what the person from the Sierra Club said about the fact that power plants also use enormous quantities of water, so they are making huge demands on water at a time when climate change is going to make our access to water more and more scarce going forward. And we have more and more people moving in, so we have to plan for that.

And then, as regards to power, we already know that they have six gigawatts of power required from NV Energy. I have seen some estimates that if everything in the pipeline gets built, we are looking at 22 gigawatts of power, which is going to explode our carbon footprint. So, we need to be looking very seriously at requiring green energy for these data centers as much as possible. Again, the same thing with the backup generators because these things have to have like 99.999 percent uptime a lot of the time for these hyperscale facilities. They are using a lot of these backup generators so we need to make sure they have other alternatives, rooftop solar, anything that we can possibly do to reduce the power usage of these things, so we do not end up paying for it. And thank you again.

Chair Anderson:

Thank you.

Patrick Donnelly, Great Basin Director, Center for Biological Diversity:

Hello. The data center "gold rush" has come to Nevada. And thus far, it has been pretty clear that nobody is in charge, so I am really glad that these Committees are looking to take the bull by the horns. There are a huge variety of issues that face us with data center build-out. And I understand this is a targeted hearing, but even within this targeted hearing, the issues that data centers reach in our natural resources is just immense. One thing we need to do is look beyond the chain link fences that surround a data center toward where they are getting their energy. There is a massive flood of energy infrastructure about to

slam into rural Nevada. Transmission lines are being strung from Vegas to Reno, from Reno to Ely, from Reno to Oregon, from Ely to Utah, from Ely to Idaho. They are going to build a whole second line right next to the first line from Ely to Vegas. Stringing up Nevada with wires like lights on a Christmas tree and all the ornaments are going to be new methane gas plants, new solar plants in the most rural and remote and intact parts of our state.

How many of you have driven the loneliest road in America, the beautiful Highway 50 from Carson City to Ely, one of the most iconic landscapes in the country. NV Energy is planning to build Greenlink North across the span of Highway 50, ruining forever that intact landscape and potentially transmitting a bunch of methane gas power across it. So maybe it is better to call it "Gaslink North" than Greenlink North. And now that we know that the baseload is going to be doubling or quadrupling due to data centers, we know the real purpose of all this energy infrastructure kind of ruining rural Nevada, and that is for data centers.

We need to rein in data centers. We need a comprehensive suite of reforms across all sectors of permitting and regulation. We need to eliminate tax abatements. We need bans on evaporative cooling, bans on new fossil fuel infrastructure, and we need to cite these projects, so they do not harm rural and tribal communities. Thank you.

Unidentified Member of the Public:

[Inaudible] . . . and a representative from the Water Over Data Alliance. As you well know, it does not take an expert historian or an aspiring one to understand that Nevada is often conceptualized as a wasteland with nothing here but extractive potential. Historical example I am drawn to is Virginia City during the peak mining. The big fortunes, they reached an estimated \$1 billion in 1875, much of which was reinvested in San Francisco real estate business. San Francisco Stock Exchange was essentially created to trade Comstock mining stocks. In 1876, the total stock value of Comstock mines exceeded the entire assessed value of the City of San Francisco. The big San Francisco banks extracted resources and left Nevada with the Carson River Mercury Superfund Site designated in 1990 that spans 330 square miles, over 130 river miles, contaminated 14 million pounds of mercury from nineteenth century Comstock lode mining.

Similarly, according to the *Great Basin Sun*, the Nevada data center market is experiencing a boom with about 25 data centers in operation or planned in northern Nevada alone, 60 in the state, primarily fueled by companies expanding from California. Tech execs are currently pushing arguments about top tier connectivity because of the proximity to California, which allows low latency connections to Silicon Valley hubs. Meanwhile, they are getting tax abatements to do it, which takes away from cities' revenues, and they make billions in contracts from advertisements. Nevada does not charge corporate income tax, and it also enacted tax cuts for data centers built here. Do not let California "boom and bust" us again and leave us with a series of superfund sites like they did in Virginia City. Thank you very much.

Chair Anderson:

Next. Good morning. Do not forget to press the microphone button. Oh, I know, we are in a different room because of the construction up in 4100.

Robbin Palmer, Climate Advocate:

Good morning. Data centers are typically very resource intensive as you have already heard, and you are going to hear that over and over again this morning, particularly regarding energy and water. And data centers have a significant detrimental impact on a community and its residents. Santa Clara, California, has more than its share of data centers. As of June of last year, Santa Clara had 55 standalone data centers. A planning commissioner with Santa Clara, California, has likened data centers to “tapeworms,” in that they continue to grow, they continue to feed, they continue to consume resources, and they provide almost nothing to the city.

Now, I think we all know Nevada is not California, but Nevada has already been infected with data centers. If we, and I am pointing my finger at our legislative representatives, do not get this under control, the prognosis is not good for any of us. Thank you for your time.

Shari Whalen, General Manager, Tahoe Reno Industrial General Improvement District (TRI-GID), Storey County:

Thank you. Good morning, Madam Chair, and Joint Committee members. Thank you for the opportunity to speak today. I wanted to briefly introduce TRI-GID [Tahoe Reno Industrial General Improvement District] and provide a minor clarification regarding the March 20 LCB data center memo. While it is accurate that in its early years, the General Improvement District was managed by an operating agreement with a company controlled by the TRI Center Master Developer, it is important to state that in 2020, that operating agreement was terminated and the Storey County Board of County Commissioners voted to become the ex officio board of trustees of the District. Today, the District provides water, sewer, and non-potable reclaimed or processed water service to nearly 300 commercial and industrial service connections under the leadership of Trustees Jay Carmona, Clay Mitchell, and Donny Gilman.

As you discuss data centers today, I want to make you aware that TRI-GID is an important infrastructure partner in the region with the responsibility and capacity to serve industrial needs, including data centers within the TRI Center. Our ability to do so rests on the unique capacity we have developed in conjunction with the Truckee Meadows Water Authority, TMWA, and the cities of Reno and Sparks to utilize treated effluent via a pipeline from the TMWA facility located in Sparks. Our processed water system also utilizes effluent from the TRI-GID wastewater treatment plant.

In addition, we manage 6,400 acre-feet of groundwater and surface water rights, and over the years, more than \$100 million in primarily private investment has built this capacity. In the next five years, we anticipate an additional \$500 million to expand the process water system at TRI Center—will be complete.

TRI-GID works very closely with these regional partners including TMWA, the cities of Reno and City of Sparks on joint operations, water policy, and planning, as evidenced by multiple interlocal agreements around effluent reuse. These projects constitute a win-win-win, regionally, preserving groundwater, deferring capital improvements at the TMWA wastewater treatment facility, and improving water quality in the lower Truckee River and Pyramid Lake.

I would like to close with two points. First, TRI-GID is available to assist in educating folks about the resources we have, and how we manage them under the stewardship of our board of trustees. And second, given the varying hydrologic characteristics and available

resources in different geographic regions of our state, single statewide policies related to data centers and their use of natural resources would not be appropriate. We look forward to participating in future dialogue with you. Thank you for your time. ([Agenda Item II C](#))

Chair Anderson:

Thank you so much. If you have got that in writing, if you could provide us with that information because you used a large amount of numbers; we want to make sure that we have that accurately reflected. Thank you so much. When you are ready, you may begin.

Nathaniel Phillips, Resident, Reno, Nevada:

Good morning. Thank you so much, members of the Committee and all who have gathered here for such an important discussion. I am a Reno resident, but I was born and raised in Las Vegas, Nevada, in the Twin Lakes neighborhood. I am here mostly to commend my friends and colleagues and fellow comrades from Reno and elsewhere in the audience who are here to speak with you today, because they know the monumental importance of the presentations and the deliberations that you all will be having in the coming months.

I want to say really quickly, it is obvious that we are dead set against the harms of data centers. We know that \$64 billion have been lost to the data center industry because of residents blocking them in their communities, and the number that has been blocked has quadrupled in the past year from 6 to 24 nationally. We know that companies like Elon Musk's, whatever one of his companies, create shell companies or buy up utilities, make their own power plants to then have their capital claws in our local communities and then manipulate our local processes, which our very business-friendly climate in Nevada is both an asset and a liability in that regard. We already know that Elon and his comrades, who are the people that run the data center industry, are getting away with millions of dollars in fines off the backs of working-class Nevadans.

The last points I want to make are that our own agencies are giving us misinformation about data centers—the Redevelopment Agency in Washoe County, Nevada Energy. If they have to provide misinformation about the harms of the industry, how can we be sure that it is a sound business investment? And the last thing I want to say is that Nevadans are not interested in the AI [artificial intelligence] bubble or the AI industry and the bubble, excuse me, data center and AI industry and bubble that will ensue. We are not interested in paying for it off of our pocketbooks. We already know that Nevadans like myself and working-class Nevadans pay more for our energy, and it has already been said, these data centers are going to rob us of our natural resources and expend a tremendous amount of energy. Thank you so much for listening to us today. Have a good one.

Chair Anderson:

You, too. Please, whenever you are ready.

Will Adler, Director, NextNV; Owner, Silver State Government Relations:

Hello, Joint Committee and Chair Anderson and Chair Watts down in Vegas. I truly appreciate you putting this topic on, Ms. Anderson. I just wanted to speak as a member of the region and kind of the guy in the middle of the network here, because I am the representative of Storey County. I am their lobbyist. I am also the representative of Northern Nevada Development Authority. It is the RDA [regional development agency] for the whole region over here. I am also the lobbyist for Pyramid Lake Paiute Tribe, so you know, you end up in a couple of spots. Today I am not Pyramid Lake's lobbyist, but you

know, I bring that to every session. I bring that with me, but I think this is the most unique region on earth when it comes to actual conversations about data centers, so I do want the Committee to actually focus on what is here, and what is in Nevada, and what data centers mean to Nevada.

The Truckee River is already the most litigated piece of water in America. I do think that structure is actually a blessing around the region and what we have today. We already have a growth expansion, three times what we thought would be population-wise when we scaled the sewer plant for Reno-Sparks in the '90s. That is an infrastructure lack that is a reality today. The Tahoe Reno Industrial Center's GID has a purple water pipeline as essentially a band-aid to keep the nitrogen out of the river to bring it to a new pond. But I do think we need to look at this as Nevada because, today it is not a theoretical, are data centers coming to Nevada. I would like you all to come out to the Tahoe Reno Industrial Center and take a tour. These are not theoretical. This is a reality. We have boots on the ground, thousands of construction workers, millions of dollars invested in just base concrete, and the reality is they are here, and they are coming here. So, I think we need to look at it as a modification of what do we do with the interest Nevada has with data centers, and frankly, I heard that the extractive economy of Nevada has continued with data centers like gold mines.

Chair Anderson:

Start wrapping up.

Mr. Adler:

I am just going to say the opposite, I think, is true, because we are seeing billions of dollars of infrastructure investment . . .

Chair Anderson:

That is your statement. Thank you so much.

Mr. Adler:

Thank you, and I appreciate your comments. Okay, thank you.

Chair Anderson:

You may begin when you are ready.

Mr. Adler:

Appreciate your consideration.

Chair Anderson:

I am so sorry. Could you please turn on your microphone? I do not believe it is on yet. Try it one more time.

Jude Fliegler, Resident, Reno:

We came here from Reno today. I live in Reno now, but I grew up here in Carson and Washoe Valley, and we went through Washoe Valley, and it is so beautiful over there and there is so much land. None of it is empty land, but there is a lot of nature up there, and it is sad for me to think about where we are putting these data centers; instead of letting nature exist, we are destroying the land. It would make sense to put it somewhere nearby water, so you do not have to pay for transportation, but of course, everywhere that water is, people also are. I wonder where these data centers are going to go, and if they are going to be anywhere near Carson City.

The jobs that are being created are not going to locals. I have met people who work at data centers. I met someone who is from the East Coast, and he said he has a job until 2027, which is not even that long, because after the data centers are built, there is not really a lot of work to do. He says he is a mechanic, so he is building it, but afterwards it just kind of runs itself.

Nearby Reno, where I live, they opened the Gigafactory, which is on technically unincorporated land in Storey County, and they do not pay taxes, or they do not pay as many taxes. I do not think it is a good idea to use our land in Nevada to build something that does not benefit Nevadans solely, and I do not know if they would be paying taxes for that either.

Chair Anderson:

Start wrapping up.

Mr. Fliegler:

Yeah, so that is it. Thank you.

Chair Anderson:

Thank you. All right, let us move down to Vegas if we could, please. If you would like to make a public comment in Las Vegas if you would come to the table.

Hector Arreola, Policy Fellow, Nevada Environmental Justice Coalition:

Good afternoon, Chairs, and members of the Committee. Our community members are concerned about the rapid expansion of data centers. As the driest state with the two fastest-warming cities in the nation, we must take every precaution to protect Nevada's families from the real cost and risk that data centers bring. While the presentation today may make data centers feel necessary and inevitable, we are here to push back against that narrative. The people you are not hearing from today are the people that will live with pollution in their backyards and future generations who will bear the consequences of decimating our land and water for big tech oligarchs. Data centers are energy- and water-intensive. They drive up local electricity demand, stream water supply, and increase pollution. For nearby communities, that means higher electricity bills, more air and noise pollution, and worsened drought.

Without strong protection, Nevadans will subsidize the AI bubble with our health and wallets. At minimum, we need explicit ratepayer protection to prohibit utilities from passing data center grid upgrade costs onto residents. We also deserve transparency. If

data centers are allowed, they must regularly report energy and water usage to the Public Utility Commission. Transparency empowers us to plan, enforce limits, and hold bad actors accountable before it is too late.

Nevadans have also already made their stance on clean energy clear by voting in 2020 for a constitutional amendment requiring investor-owned utilities to get half of their energy power from renewables by 2030. NV Energy now says they may fall short due to the influx of data centers. Data centers should not take priority over the will of Nevadans and our clean energy future.

Finally, you may hear about all the construction jobs that AI may generate, but AI will likely have a catastrophic impact on working-class Americans, eliminating tens of millions of jobs across every sector. We are already seeing massive layoffs nationwide, and as a state facing high unemployment, we cannot afford to make matters worse. We hope this Committee will hear today's industry presentation with cautions and consider implementing strong protections that Nevadans deserve. Thank you.

Chair Anderson:

Thank you. Please begin when you are ready.

Justin Hopson, Community Organizer, Faith Organizing Alliance:

Thank you, Madam Chair, and members of the Committee. I am a community organizer with the Faith Organizing Alliance, a coalition partner of the Nevada Environmental Justice Coalition, and I am here today because the rapid expansion of data centers poses a real risk to Nevada's power grid and to our communities. Nevada's grid is already under strain. As the driest state in the nation and home of some of the fastest-warming cities, we depend on a system that must remain reliable under extreme conditions. Data centers are massive energy users, with some facilities consuming as much electricity as entire small towns, yet we still lack a clear public understanding of how prepared our grid is to handle this level of demand. Without proper planning and investment, continued expansion could lead to outages, higher utility costs, and greater pressure on working families. These facilities also require large amounts of water, adding another layer of stress to resources Nevada simply cannot afford to lose.

We are asking for accountability. First, strong ratepayer protection so residential customers are not forced to cover the cost of infrastructure upgrades driven by private development.

Second, full transparency. Any new data center should be required to report its energy and water usage to the Public Utilities Commission so impacts can be tracked in real time. Nevada's future depends on a grid that is reliable, affordable, and fair. Growth should never come at the expense of the people who live here.

Thank you for your time and consideration. I respectfully ask that this Committee take these concerns seriously, so the decisions made today do not become the cost of Nevada families that are forced to pay for tomorrow. Thank you.

Chair Anderson:

Thank you. Next speaker.

Jessica Begnal, on behalf of Motorcycle Rights for Nevada:

Chair Watts, and members of the Committee. Good morning. My topic is a little bit off-brand. I am here on behalf of Motorcycle Rights for Nevada; a growing statewide effort focused on improving safety for motorcyclists and all road users. I am here to highlight a roadway safety concern impacting riders across Nevada.

One of the most dangerous situations motorcyclists face occurs in stop-and-go traffic, both at intersections and on congested freeways. Riders are uniquely vulnerable in these conditions, with very little protection when traffic suddenly compresses behind them. Lane filtering is a low-speed, controlled safety measure in stopped or slowed traffic that increases rider visibility and reduces exposure to rear-end collisions, two key factors in some of the most dangerous crash motorcycle scenarios. Granted, it is not a solution to fix every crash scenario, but it is an evidence-based approach in addressing a preventable risk. Lane filtering is already in place in our neighboring states: Utah; Arizona; and Colorado. It has been implemented with clear parameters, public education, and coordination with law enforcement.

As the Committee continues its work on transportation systems, we respectfully ask that lane filtering be considered as a safety-focused policy option for the State of Nevada. We are committed to being a constructive partner in this process and would welcome the opportunity to provide a more detailed overview at a future meeting. Thank you so much.

Chair Anderson:

Thank you. Next speaker please.

Janet Carter, Resident, Nevada:

Good morning. I am the Chair of the Southern Nevada Group of the Sierra Club. I believe you will be hearing from members of our organization later and hearing our opinions on these data centers. I, today, will speak for myself as a 40-plus year resident of the State of Nevada who has lived in both northern Nevada and southern Nevada.

I just want to say it is hot out there. We have had a week of near record or record temperatures in March in Las Vegas; temperatures approaching 100 degrees. It is not going to get cooler. I did not once turn on the heat in my house this winter, not once. That shows that we had an unusually warm winter. It is getting hotter.

We are also short on water resources. If you look at Lake Mead and Lake Powell, they are at record low levels. Now, I understand that the City of Las Vegas and the Las Vegas Valley has been very good about water preservation, conservation. And in fact, we do not get a high percentage of our water from Lake Mead. That being said, a lot of that water in those lakes does go to California and to areas where our crops are grown. So, we may not get our water from there, but our food gets water from there and that is also a very important resource.

In the meantime, there is a war in the Middle East, and that war is affecting fuel supplies. And as you all can see, if you look at the gas station down the street, energy prices are rising and rising steeply. And they are going to continue to rise. If we are going to have data centers here as an industry in Nevada, we are going to have to first protect our energy sources and protect our water, and doing so will protect our state for all the reasons that others have already mentioned.

We need to make sure that these centers, if they are using energy, that they are using clean renewable energy, and that is a big portion of the energy that they use. We also need to very carefully monitor the water that they are using because our Nevada residents . . .

Chair Anderson:

If you could please start wrapping up. Thank you.

Ms. Carter:

Thank you.

Chair Anderson:

Thank you so much. Next speaker.

Paulette Henriod, Environmental Advocacy Specialist, Mormon Women for Ethical Government:

Good morning. Mormon Women for Ethical Government, or MWEG Nevada, is composed of women throughout the state who firmly believe in our responsibility to be good stewards of the earth's resources while ensuring that the state's families and businesses have access to safe, reliable, and affordable electricity and water. For these reasons, we are concerned about the impacts the data centers have on community resources.

Data centers pressure and strain local power grids. In some places, utility companies have passed on the cost of new infrastructure and increased electrical demand to general ratepayers. However, Republican and Democratic lawmakers in at least a dozen states have required that data centers have separate, higher rate categories in order to protect smaller ratepayers. We urge the Nevada Legislature to examine these measures to see how they might be implemented in our state to avoid placing burdens on Nevada households and small businesses.

We also encourage the Legislature to ensure that new load growth from data centers is met with cheaper, renewable energy produced locally and not from an expansion of fossil fuel capacity or infrastructure. Several states have introduced bills aiming for renewable usage, emission standards, or efficiency goals for data centers. Illinois, for example, is pushing for data centers to bring their own clean capacity. Virginia has moved towards linking financial incentives for data centers to their ability to provide or purchase renewable energy.

Finally, Nevada has suffered through severe drought conditions and over appropriated water basins for years. The Legislature must take the substantial impact of data centers on available water resources into account. Data centers should fully disclose potential water use and sources and should be required to recycle water and use on site . . .

Chair Anderson:

Thank you. If you could start wrapping up your comments.

Ms. Henriod:

. . . which has shown to reduce consumption substantially. Thank you for your time today. I appreciate it. ([Agenda Item II D](#))

Chair Anderson:

Thank you. Next speaker please.

Caitlin Gatchalian, Nevada Representative, Southwest Energy Efficiency Project:

Thank you, Chair Anderson, Chair Watts, and Committee members. We are a public interest nonprofit organization that advances energy efficiency, beneficial electrification, and clean transportation. We have four major programs we work under, including utilities; buildings; transportation; and industrial. Our full report, *Data centers: Power needs and clean energy challenges*, is submitted for the record as an exhibit. ([Agenda Item II E-1](#))

Nevada is in the middle of one of the fastest data center expansions in the country, and we have no state law to manage it. In northern Nevada alone, NV Energy expects electricity demand to double in the next eight to ten years, driven almost entirely by data centers. Just 12 projects in the pipeline will require more than half of the state's current total electricity generation. This growth is happening faster than our infrastructure, our water resources, and our regulatory framework can keep up. Right now, there are no consistent requirements for who pays for the grid upgrades, whether these facilities use clean energy, how much water they consume, or what they report to the public. These decisions are being made through contracts and local approvals without statewide standards for accountability.

Other states are already acting. They are requiring long-term cost commitments, protecting ratepayers, and ensuring transparency. Nevada has a strong foundation to build on, but voluntary programs are not enough. We need legislation that ensures data centers pay for the infrastructure they require, use clean energy, report their energy and water use, and meet clear conditions if they receive public subsidies. This is not about stopping growth, it is about managing it responsibly. Thank you. ([Agenda Item II E-2](#))

Chair Anderson:

Thank you. Next speaker please.

Brian Scroggins, Administrator, Division of Planning, Agency for Nuclear Projects, Office of the Governor:

Good morning. I am just here to observe today, but there has been discussion over the last year that some of these energy needs will need to be met with some new nuclear technologies. I am very familiar with them. I sat on some Western Interstate Energy Board committees, so I am just here to introduce myself to tell you that we have staff here in Las Vegas, also in Carson City. If you need anything from our staff, we would be happy to chat about what is going on here or in neighboring states, and I will leave some cards with your staff. Thank you very much.

Chair Anderson:

Thank you, Mr. Scroggins. Next speaker, please.

Chair Watts:

Chair, we have no one else coming forward down here in Las Vegas.

Chair Anderson:

Thank you, Chair Watts. Now let us go to the phone lines. AVH [Audio Visual Hearings Unit], do we have anyone who wishes to make public comment?

AVH, Information Technology Services, Administrative Division, LCB:

Thank you, Chair. To provide public comment, please press *9 on your phone or Raise Hand in your Zoom window to take your place in the queue.

Rachel Henderson, Resident, Nevada:

Hello, can you hear me?

Chair Anderson:

We can; you may begin.

Ms. Henderson:

Thank you so much. All of my points have mostly been made, but I wanted to say I am a first-generation Nevadan, a second-generation entrepreneur, and business owner in Nevada, and a mother raising my son in the land I grew up on. I wanted to say that, as such, I will fight for the health and well-being of the land and the people here, and this is your opportunity to do so. Skimming over my notes as they have mostly been said already.

It is not always customary for our government to consider the health and well-being of humanity and the planet over the promise, real or imagined, of money, but we are running out of time to make it right. Misallocating Nevada's precious little resources will cause instability in our communities. Do not betray your conscience by turning Nevada into a corporate wasteland of chemicals and noise. We will remember. Thank you.

Chair Anderson:

Thank you. Next caller.

Doug Busselman, Representing the Nevada Farm Bureau:

Good morning, because of our strong support for continued productivity of agricultural lands, including federally managed lands for traditional uses, we are concerned over efforts to convert agricultural lands to uses such as data centers. If data centers are established in rural areas, we support data centers paying for their utility directly, and we oppose that the data center power and grid costs being passed on to individual consumers in any way. We support a ban on industrial water cooling systems that require massive amounts of water to be used to cool. We support waterless cooling systems for data centers, and we oppose data center activities that will taint water in any way. This includes dumping waste into ways that will impact the quality of water that is needed for agricultural and drinking use. Finally, we oppose tax rebates and incentives to be granted to data centers' activities. Thank you.

Chair Anderson:

Thank you. Next caller, please.

Autumn Harry, Representing Water Over Data Alliance:

Nu Autumn Harry me naneano kuyui panunaduwa'e no kuyui takataga takara dine no [spoke in native language].

I am both Paiute and Navajo and a member of the Pyramid Lake Paiute Tribe. I identify as a fisherwoman and community organizer. Today I speak to you as a representative of the Water Over Data Alliance. I am approaching this topic as a community member who lives and has spent my entire life at the terminal end of the Truckee River watershed. Regardless of the specific level of land or water use, any data center development has potential impacts to the flows of water along the Truckee River. Approval of data centers should not proceed without full prior and informed consent from the sovereign nations who are the traditional stewards of this land and water. Indigenous peoples of so-called Nevada include the Northern Paiute, Washoe, and Western Shoshone. We all depend on the health of all waters within our homeland.

It was only 120 years ago when the water diversion project, Derby Dam, was constructed, which resulted in massive water theft that led to an 80-foot decline in Pyramid Lake, the draining of Winnemucca Lake, and the local extinction of the ancient Lahontan Cutthroat Trout. The Pyramid Lake Paiute Tribe have spent decades in water litigation to regain our water rights, and our people continue to care for the endangered and threatened fish species, the Cui-ui and Lahontan Cutthroat Trout. These fish have sustained our communities and way of life since time immemorial, and they cannot survive without water and increased nutrient loads coming from upstream industries. The environmental impact assessment of any proposed data center should include a hydrologic analysis of source and potential impacts with respect to water quantity and water quality and to ensure tribal water laws are abided by, including, but not limited to, the Truckee River Operating Agreement.

Throughout the U.S., Indigenous communities are being told that AI data centers will help our communities protect and assert our data sovereignty. However, many tribal nations do not have the capacity or legal infrastructure to regulate multinational corporations. By giving these companies unfettered access to our data, we are giving away our power. This is not data sovereignty. I respectfully ask the Natural Resources Committee to take the lead in developing data center policies on the statewide level and include mandatory input from tribal leaders in Indigenous communities. Thank you.

Chair Anderson:

Thank you.

Chelsea Garin, Resident, Reno, Nevada:

Howdy. Good morning. I am a recent transplant. I lived in Texas, central Texas specifically, for about a decade, and I left specifically because Texas does not value its environment, whatsoever. I moved here to the West Coast, as close as I could get, because I understand and I have past experience with how treasured we treat our lands notwithstanding of corporate interests. I currently work in corporate securities, and I have information on how investors benefit from their investments in the hottest new tech to make bank off of. And I am extremely tired of our land; our limited resources being used to benefit investors in private companies and/or public companies while the people who live nearby these data centers and/or these new tech "gold rush" opportunities are being swindled.

Back in Texas, there are numerous residents who are complaining, valid complaints, of how data centers and the building of those centers are unregulated. They are causing the misery, health issues, and more. The fact that we have NV Energy saying that they are going to do a good job, when for the last two decades they overcharged consumers regularly. That we have DRI [Desert Research Institute]—who I adore—I read their white paper on the heat map that they created based on Vegas and Reno. Here in Reno, we have some of the hottest areas, and yet we are going to be giving over water access to corporations who do not and are not held to requirements.

Chair Anderson:

If you could please start wrapping up your comments. Thank you.

Ms. Garin:

Sure. I am tired of corporations getting good deals. No, absolutely not. Thank you.

Chair Anderson:

Thank you. Next caller, please.

Jax Hart, Farmer, Community Organizer, and Member, Water Over Data Alliance:

Hello. Thank you for meeting today. I was born and raised in Nevada, and I am deeply committed to the preservation of life in this state, and data centers present a threat to life in a fragile desert ecosystem. I want to echo the sentiments of the people before me who have spoken on the impacts on the fragile desert water systems as well as our energy grid. I want also to second what others have said about comprehensive regulations on data centers. I specifically want to continue with what Autumn Harry has said and further advocate for a moratorium on any continued approval or construction of data centers until we can do a more thorough study into the tribal, environmental, economic, and human impact of these centers.

Here are some of the facts that have informed my deep concern and dread about the enormous boom of data centers in the driest state in the nation with the fastest-warming cities in the country. It has been estimated that the 12 data center projects listed in NV Energy's 2024 report would directly consume between 860 million gallons and 5.7 billion gallons a year just based on electricity capacity. This is from water evaporating on site, which is completely leaving the watershed. Indirect consumption could add up to 15.5 billion gallons. This includes electricity generation outside of the watershed. The level of direct water consumption can be somewhat mitigated with the use of closed loop or air-cooled cooling systems. However, these systems are much more energy intensive and those using evaporative cooling, thus producing more emissions and energy-related water consumption. I also want to mention that the even so-called closed loop cooling systems often result in descaling agents and other contaminants being pumped back into groundwater reserves, permanently damaging our drinkable and agricultural water, which is essential to life care.

In addition to these water and energy issues, I do not see any economic benefit that these centers offer to the state and taxpayers. The people that will be subsidizing these centers . . .

Chair Anderson:

If you could please start wrapping up your comments. Thank you.

Mr. Hart:

Yes, I just want to reiterate that I am advocating for a moratorium until there is more research done into these data centers and their impacts. Thank you.

Chair Anderson:

Next caller, please. Thank you, by the way.

Emily Richardson, Resident, Carson City, Nevada:

Hi. I try to leave a different comment, too, but I am glad and appreciative for the chance to speak. I just want to say, as far as I understand, Nevada is a first-in-time, first-in-right state when it comes to water. Data centers do not deserve our most precious and valuable resource. Time and time again, we bleed for big companies in the state, only to see our quality of life drop. Please follow our laws and keep Nevadan water for the Nevadans. Thank you. ([Agenda Item II F](#))

Chair Anderson:

Thank you. Next caller please. You may begin when you are ready.

Jordan Stone, Resident, Sparks, Nevada:

Hi. I do not have any notes in front of me, so I am just going to speak off the dome. I am a former employee of a couple companies out at the Tahoe Reno Industrial Center. And I can speak from very personal experience on how much pollution the so-called "green" companies produce during their manufacturing and prototyping processes. I personally worked in one of the prototyping labs out there, and during our processes, during 3D printing, we used nylon powder with glass particles in it for stronger 3D printing pieces. That process creates metric tons per month of plastic dust, and that is just in one company's prototyping lab.

And so, we do not know enough about how these data centers are going to be constructed, how they are going to be using their water, whether or not they can use a closed loop cooling system. So, I would like to echo the sentiments from other callers and propose a moratorium until we can know exactly what the environmental impact is going to be, exactly what kind of water usage is going to be, what the descaling chemicals are going to do to our water systems here. We need to know way more before we just let these companies come in and pollute our water resources and our land with plastic and concrete and all these harmful chemicals that do the descaling. Thank you.

Chair Anderson:

Thank you. Next caller, please.

AVH:

Caller, please press *6 to unmute. Please proceed.

Delaney Crekbaum, Resident, Washoe Valley, Nevada:

Thank you. Hi. This is actually my first time making a public comment because I have done the research and I realize that data centers need more regulations because they provide zero benefits for the local communities of Nevada, but they contain many consequences Legislature is not considering for the local family. They use immense amount of water filled with contaminants as other residents have described, including biocides, heavy metals, and chemicals for it to inhibit corrosion.

My energy and water bill will also go up because they pay commodity rates for utilities in the . . . I am sorry. I am really nervous, but this is really important to me, and that is why I am here.

Chair Anderson:

You are doing great. I am going to ask you really quickly to just take a moment and say your name, and if you could possibly spell it for us as well, and then you can go back to your testimony, if possible.

Ms. Crekbaum:

Yeah, of course. And also, something I have not heard anyone mention before is the noise pollution that the data centers will emanate, and they emanate up to 96 decibels, which is similar to a motorcycle or jackhammer running 24/7. And I have seen, at least in Reno, that they are building these data centers directly in residential areas such as Kietzke Lane. And I think that that is not being very considerate of the local community and the people who are going to be experiencing that noise all the time because there is also cortisol levels will go up, and it will also cause a lot of other anxiety problems and mental issues.

And there is also no corporate income tax for these data centers, so there is also a lack of consistent jobs. And I just do not see any benefits for not only me but also everyone, including the state, for these data centers to be in place. And as a state known for the cleanest lake in the world and all of this nature and hiking, we [inaudible] be putting more effort to protect our . . .

Chair Anderson:

Thank you so much. If you could possibly start to wrap up your comments, please.

Ms. Crekbaum:

That is all. Thank you for hosting this public comment and you listening to me.

Chair Anderson:

Thank you so much. Next caller, please.

AVH:

Caller, please press *6 to unmute. Caller with the last three digits 692, please press *6 on your phone to unmute. You are unmuted. Please go ahead.

Tata Tran, Resident, Reno, Nevada:

Hi, how is it going? I have lived in Nevada all my life, and I just want to echo the sentiments put forward by Autumn Harry and the other members of the Water Over Data Alliance and push for full environmental impact studies and understanding the hydrological and social economic and pollution effects that these data centers would have on the surrounding communities and all communities that are impacted by their water and resource use. I think that data centers should not be constructed without full support from the communities that would be impacted by their construction, otherwise we are valuing the profits of corporations over the people that live in these areas, the animals that live in these areas and their ecosystem.

And I would like to zoom out a little bit and talk about even the pushes towards the use of green energy to support these data centers, considering that things like the Greenlink, what is the north transmission lines, Esmeralda 7, and the many solar farms that are being constructed in fragile ecosystems are destroying them. So even our green option still destroys ecosystems and land and water, and for what? The second largest data center in the world is being constructed in Nevada and Storey County, and the primary client is Thiel Wealth. You might recognize the name Thiel from Peter Thiel, the founder of Palantir. These data centers are being used to host and use our data, our faces, our identities for mass surveillance and to kill people here and around the world. The reason these data centers are being constructed and what makes, drives their profit is death, and surveillance, and colonialism. Colonialism that is happening across the world and to the Indigenous communities that live here in Nevada. Their water is being stolen, and we cannot be treating . . .

Chair Anderson:

Can you start wrapping up your comments? Thank you so much. Next caller, please.

Mike Bart, Resident, Reno, Nevada:

Hello. I was born here and grew up here. I recently moved and there was a little error in transferring the water bill over to the new place, and so for a couple of days, I was filling up plastic containers of water from a neighbor's house and that is what I was using. And just for a couple of days, it was really sobering to think about a future where we all have to do that. And that is the reality in some places around the world, and where it is not the reality, we should protect it, to keep things flowing as they should be.

So, yeah, I want to echo all the sentiments about a moratorium before we study the full impact on all life that the data centers will have. And I just think it is important when you wake up in the morning and you get a glass of water to think about how we do not need data centers. There is no safe way to do data centers. Do not sell us all out. When you brush your teeth—we do not need data centers. There is no safe way to do data centers. Do not sell us all out. When you see a bird and admire it—you do not need that data centers. There is no safe way to do data centers. Do not sell us all out. When you flush the toilet—we do not need data centers. There is no safe way to do data centers. Do not sell us all out. Thank you.

Chair Anderson:

Thank you. Next caller, please.

AVH:

Caller, please press *6 to unmute. You are muted.

Chair Anderson:

You can begin when you are ready.

Noah Sneed, Resident, Reno, Nevada:

Okay, thank you. Most of these points have already been addressed, but as a resident of Reno who has grown up here in the desert, but the logic behind considering building this in the first place, it will not only endanger our wildlife, environment, but the humanity itself, using 7.1 trillion gallons of water that could be used to benefit our people. It impacts our drinking water, and our energy, our air, and our beautiful home. It pollutes our food, our plants, and eventually will impact our daily lives. So why are we even fighting this in the first place? This will poison Nevada, and this makes me angry as a Nevadan. We need to do better for each other and for our home. Thank you.

Chair Anderson:

Thank you. Next caller, please.

AVH:

Thank you, Chair. If you have recently joined the call, please press *9 on your phone or Raise Hand in your Zoom window to provide public comment.

Jessica Munger, Resident, Reno, Nevada:

Good morning. Today I am calling in my personal capacity as a Reno resident, community organizer, homeowner in your current data center project, voter, and mother. I know that many of you, like me, are parents, and I really want to encourage us to center children in this conversation. It is our responsibility to consider our children and theirs, and theirs, and theirs, and the many generations that will come after us. I urge you to think beyond the conveniences of now and look towards the future, not just the economic future of Nevada, nor the corporate shareholder supremacy and the economic gains of the near future. I want you to think way beyond that. I want my child and yours to have access to clean drinking water, to be a part of a thriving environment, and to know that those of us who came before them cared about them and the planet that we rely on for life itself. That we could zoom out and have the responsibility as a human being on this planet beyond the money and the stakeholders and the corporate infrastructure and to think about ourselves as mammals on planet Earth and protect the water that we absolutely need, because at the end of the day, we cannot drink money, and we cannot bathe in profit. And I am begging you to put humanity first and consider this in a holistic way. There is no safe way to do data centers. Thank you.

Chair Anderson:

Thank you. Next caller.

Meagan O'Farrell, Resident, Reno, Nevada:

Hi. Good morning. I am a community advocate, and I do food security work to help get more food into the bellies of my neighbors and my community. I am calling in to mirror many of the concerns that folks have already brought up in front of you all today about the environmental impacts, the social impacts, and the ways with which these data centers are dangerous for the world that we are trying to live in. And so, I would encourage you to please do a moratorium on any future data center builds and prioritize the land and the water over profit. Thank you so much for your time.

Chair Anderson:

Thank you. Next caller please. You may begin when you are ready.

Elizabeth Bree Kasper, Resident, Reno, Nevada:

Hi. I live less than 500 yards away from the current development of the Lumen Data Center on Keystone in Reno, Nevada. And I am pleading to the appointed Committee members at this meeting to immediately place a six-month moratorium on the data centers and their development. I have firsthand witnessed how this data center has been pushed through and not gone through any of the proper channels. When I was given notice about it in September of 2025, as a local resident homeowner, they asked our opinion for a building that was currently in development. Then they tore down that building and started a totally new project, and there was no information that this would be a data center when it was approved. These data centers are pushing beyond our capabilities. I am gravely concerned about our natural resources of the greater Sierra Nevada's with the growing list of new data centers being developed in and around the cities of our driest state in the country. There is no reason to rush these projects without careful consideration of the impacts to our community, our environment, and our future to our natural resources.

According to the United Nations' Intergovernment Panel on Climate, we have until 2030, which we must take rapid, far-reaching, unprecedented actions to stem catastrophic climate change. These data centers will need to have backup power and either diesel, coal, methane, or some other type of fossil fuel. We need to ensure that these alternative backup forms of power are limited and reregulated. All new industries need to have renewable energy incorporated into their business plan if we are serious about making these changes by 2030. This is why I am requesting the Committee members to approve Item C-3 and put a six-month moratorium in place to allow the Committee a chance to, the community, to voice their concerns before the data center are allowed to ruin our neighborhoods and resources. Please do your duty to protect our precious water and energy, this community, and our beautiful State of Nevada. Thank you so much for your time. ([Agenda Item II G](#))

Chair Anderson:

Thank you so much. I believe C-3 was referring to a Reno City Council agenda item, but thank you very much for those comments. Next caller, please.

Jennifer Ascari, Member, Sierra Club:

Good morning. It is a privilege to be able to speak here today, and I want to reiterate that I am a member of the Sierra Club and have been for more than 30 years. I came to Lake Tahoe back in 1998, and I am going to tell you this brief narrative because I think it speaks volumes. I came back because of Lake Tahoe. No surprise. I am made of 70 percent water, and I am drawn to this beautiful body of water. I became a teacher when I was in

Lake Tahoe, but there were no teaching jobs, so I moved to Silicon Valley, so I can speak very succinctly about what is going on in that Valley. As a teacher, most of my children recreated up in Lake Tahoe, and I convinced them not to go up and build and develop, but to preserve this body of water because it provided so many resources to so many people. I noticed many of you are drinking coffee this morning. What is the key requirement for coffee is water. What has happened down in Silicon Valley is they have created a wastewater treatment plant. When I took my students there and said to them, "This is what they are doing. They are taking toilet water, and they are cleaning it up." Let us let the people in Nevada know where water in the future might be coming from. As a teacher and being someone who lived in Silicon Valley, I think about design thinking. I think about long-term, not short-term, immediate results. I also think about our students, the children. Many of you have children, and think about the detrimental effects that AI is having on our children, and that is the basis for building these data centers.

Chair Anderson:

Thank you. If you could start to wrap up.

Ms. Ascari:

How can we avoid this? Please, recognize that we do not want to fail.

Chair Anderson:

Thank you. Next caller please.

AVH:

Caller, please press *6 to unmute. You are unmuted. Please proceed.

Elena de la Paz, Resident, Reno, Nevada:

Hi. I am here as a resident, and educator, and community organizer in the City of Reno. If you cannot hear the children in the background, I am currently working with children, and something that I constantly hold as a responsibility is teaching the fact that water is something we need to protect and hold sacred. As these data centers are being proposed with tactics, incentives from billionaires and with no consent from the communities most impacted, including no consent from the tribal communities impacted at the end of the Truckee watershed. The data we have seen from data centers shows devastating impact to our water levels directly impacting keystone species that depend on the flow of our water. Much of the disappointing language being used by data centers claims that there, quote, "Is a right way to do data centers." This is irresponsible. Even methods that do not use evaporative cooling still have severe impact. Our waters have been protected by the Northern Paiute, Western Shoshone, and Washoe Tribes. This is their land, and as community members, we look to them as the true protectors of the waters of these lands. The Lahontan Cutthroat Trout, the Cui-ui, and more depend on us to make the decisions to say no to data centers. Thank you.

Chair Anderson:

Thank you. Any more callers, AVH?

AVH:

Once again, to provide public comment, please press *9 now to take your place in the queue.

Ms. Kasper:

Hello. I would like to edit my public comment. I do live 500, less than 500 yards from where they are currently building a data center. I am extremely concerned about our water and the resources, like energy, that it would take to continue to develop and run these data centers.

Chair Anderson:

Thank you so much.

Ms. Kasper:

I am an herbalist . . .

Chair Anderson:

AVH, are there any other new callers?

AVH:

We have one caller, Chair. Caller, please press *6 to unmute.

Jess Burroughs, Resident, Reno, Nevada:

Hello. I am a small-scale veggie farmer with Reno Food Systems in the Reno area. I am here today to request the Committee to come up with legislation and regulations that will severely restrict further development of data centers in Nevada. Currently, there is little ordinance and regulation around data center development, and Storey County actually preapproves this development in the Tahoe Reno Industrial Center. As data centers require large amounts of water, land, and energy, I believe data centers have no place in the driest state in the nation.

In the background information for this meeting, it was reported that the Google Data Center in southern Nevada used approximately 352 million gallons of water in 2024, and with 70 data centers already operational, planned, or under construction in Nevada, we are indeed talking about billions of gallons of water leaving our watershed. On top of this, over half of our state's groundwater basins are over appropriated. There should not even be a discussion on whether to allow billions of gallons of water to be withdrawn from our watersheds. We cannot allow this development.

We are very obviously on the critical threshold of climate change that threatens everyone, especially so in a city that is warming at three times the pace of the national average. And according to the background memo, NV Energy is likely to miss its constitutionally mandated clean energy benchmark for 2030 due to power requests from data centers, and Greenlink is not the solution. Building renewable energy sources for an entirely new, unwanted energy demand is not a climate solution at all.

It is this Committee's duty to listen to its constituents and tribal communities. It is your duty to protect your communities from corporations that will literally suck the life out of them, and it is your duty to stop data center development now.

AVH:

Chair, we have no additional callers for public comment at this time.

Chair Anderson:

Thank you. Thank you so much for all the public comment. For those individuals who would like to make further public comment, just a reminder, we will have it again at the end of the meeting and then also you may provide public comment through email.

AGENDA ITEM III—DATA CENTER OVERVIEW

Chair Anderson:

Let us move on to our data center overview. We will be starting with The Pew Charitable Trust. They will be joining us today over Zoom to provide some educational information. AVH, are we ready for them? And hopefully they will be able to get started right away. Thank you for your patience.

John Begala, Officer, Energy Modernization Project, The Pew Charitable Trusts:

Good morning, Chair Watts, Chair Anderson. Can you all hear me?

Chair Anderson:

We can; you may begin whenever you are ready.

Mr. Begala:

Excellent. Thank you so much. I just wanted to begin by extending my thanks to both Chair Watts and Anderson for our invitation to join your meeting today and to members of the Committee as well. I would also like to thank Committee staff for the work that they put into preparing today's presentation and working with us as we got together on this.

My role here—and I will be joined by my colleague, John Seebach, later on—is to provide kind of a 101 on data centers. But just very, very briefly on The Pew Charitable Trusts. We are a 501(c)(3), who operates a variety of projects in the public interest, and these range from projects on affordable housing, state fiscal policy, environment, and energy. I am joining you all today from the Energy Modernization Project.

So, let us get into this. I have just a couple of slides, but they will hopefully set a bit of a background for the rest of the conversation. So, at a high level, what is a data center? We hear a lot about them, but they are essentially just warehouses for computer servers. Data centers have been around for many, many decades, and in fact, if you go back and look at the first computers from the 1950s, they look a lot like what you see in a data center today—racks of servers stored in a warehouse with cooling systems as well. Data centers are essential infrastructure for digital services. That means, whenever you send an email, or watch Netflix or other streaming services, you upload a photo to the cloud, or even quite frankly, use the services we are using today to participate in a virtual meeting, you are using a data center. ([Agenda Item III](#))

Data centers have different forms and functions. Those range from enterprise data centers, which are specific to companies to store their data securely, to colocation and service providers, which can be flexible in which companies they are providing data server data center backup to. And then finally, the category of data center that is getting a lot of attention right now are hyperscale data centers.

When you look across the United States, there is actually not a single federal registry of all data centers. However, there is an industry group that compiles data centers across the U.S. called the Data Center Map. Here is a screenshot that was provided by my colleagues at the Pew Research Center that offers a look at data centers as of late 2025. At that point, there were 4,000 data centers active in America. And we really see them clustered in four primary regions. That is northern Virginia, where data centers really have kind of the highest concentration, but also in Dallas, Chicago, and Phoenix. Half of new proposed data centers today are going towards those four clusters. However, the other half are expanding into other areas that have not previously seen data centers. So, you know, if you are looking at this and you are thinking we have had data centers for a long time, they support all the digital infrastructure that we have integrated into our daily lives, then why are they such a hot topic right now? And I would offer three reasons, and that is speed, scale, and context. I know that we have got a lot of other presenters today who are going to speak to the specific data center questions relevant to Nevada, especially on speed and scale, and so, I would like to just offer a bit of national context for data centers, and why this matters in this moment right now.

When you look at the U.S. grid over the last 20 years, we were in a fairly remarkable period of stasis. This is driven by the fact that our energy efficiency gains were able to pretty much equal any growth in the economy and growth in energy consumption from other sectors. This is because of improved home efficiency, improved light bulbs, improved home appliances, improved business energy efficiency, and we were able to sit in that period of stasis for about 20 years. Now, over the last couple of years, we have begun to see some meaningful growth in electricity demand, and every forecast today does project that over the next 20 to 30 years, demand for electricity will continue to grow. However, these forecasts do have some range to them as you can see here. There are a couple of different forecasts and potential ways in which we could see the U.S. grid grow.

Now, while data centers do take up most of the attention right now on that growth and demand on the grid, they are not the only reason that our grid is growing. They certainly are a plurality of the near-term demand growth, as you can see in this chart from the National Electric Manufacturers Association. Data centers make up about a third of the near-term growth between now and 2037. Then, past that point, the forecast is that transportation, so essentially electric vehicles, will become one of the primary drivers of electric growth across the economy. The other major drivers of electric demand growth are coming from the transportation sector, I am sorry, the industrial sector, where we are seeing a lot of industrial processes that have previously been powered by traditional fossil fuel energy are now electrifying their activities, both for cost and environmental reasons. So essentially, we are going to have a period in the near term here where data centers are the plurality of demand growth. However, in the long run, the electricity grid is going to need to grow to be able to accommodate broader electrification trends that we are seeing across the economy.

And now, this trend is true but varied across the country. So, you do see some regional variations. A place like New England, it does not typically see a lot of data center development growth due to kind of stagnantly high power prices. The rest of the country is

seeing pretty consistently data centers is one of the key demand drivers on the grid. However, as I mentioned previously, we are also seeing in some places manufacturing, and vehicle electrification, and building electrification as one of the key demand growth drivers.

I am going to finish on this point here, which is just to very lightly and quickly touch on the point of scale. Data centers up to this point, often 5 to 20 megawatts, but hyperscale data centers today are currently 20 to 100 megawatts. That puts it on about the ballpark of like London Heathrow Airport or a large college campus. Looking ahead, the data centers that are being proposed are orders of magnitude larger. There is a data center in Pennsylvania, the Homer City Data Center, that is currently under construction on a former coal site that is 4,500 megawatts, and as you can see with this fairly helpful graph here, that is substantially larger than most of the data centers that we have seen in the past.

With that, I am going to turn it over to my colleague John Seebach, who is with our U.S. Conservation Team, to speak at a high level to the water issues that data centers bring up.

John Seebach, Project Director, U.S. Conservation Program, The Pew Charitable Trusts:

Thanks, John. Chair Anderson, Chair Watts, members of the Committee, thank you for the opportunity to participate in today's joint meeting. I actually lead a team focused on land and freshwater conservation in southern Appalachia. I am here today filling in for some of my western colleagues on freshwater. If you have questions for me, I may refer you to some of my colleagues to get you the best answers.

Before working in the Southwest, I was engaged in several large conservation projects in Nevada. This part is part of Pew's public lands and rivers projects, and before that, I worked on freshwater issues across the country for more than a decade. I know from my time working in freshwater and particularly working on conservation projects in Nevada, how important and precious freshwater resources are to Nevada, which is, as you know, the driest state in the nation. I also know that your state has made incredible progress—really setting the benchmark for arid states—in reducing consumptive use, improving efficiency, and managing a very limited set of surface and groundwater supplies. Can we go to the next slide, John? Thanks.

I asked an AI data center based in northern Virginia, where I live, to create an image of a data center consuming water, but this, I am reasonably confident that there were no consumptive use of Nevada's freshwater resources involved in the generation of this image. If I could tee up three points for today's larger conservation, I would say this. First, AI data center freshwater use is both significant, and it is growing. Second, AI freshwater use and data center freshwater use remains smaller than many traditional water use sectors, but the projected growth and the location-specific impacts warrant careful consideration, particularly in an arid state like Nevada. Despite your state's leading efforts at water conservation, many watersheds and aquifers in the state are already overallocated. So, it is really important that you think carefully about how a new, fast-growing, water-dependent industry has the potential to impact your state's already constrained freshwater systems. And then finally, public views on AI and public views on data centers are mixed, and people are still forming opinions according to the data that we have. However, there are concerns in the survey data that are worth noting, and I will present on a couple of those here briefly. Next slide, please.

First, AI data and data center freshwater use is both significant and growing. The graph you see here on this page is from a 2024 report by the Lawrence Berkeley National Labs, provides sort of a national perspective on the growth in water use or AI and data centers. Hyperscale data centers in the United States are expected to consume between 48,000 and 100,528 acre-feet per year by 2028. And then, for a more regional perspective, Western Resource Advocates has a report that was published in July 2025 that focused on Colorado, Utah, Arizona, New Mexico, and Nevada. And that report projected 13,700 acre-feet being used for data centers, water being used for data centers by 2030, that number would grow to 21,600 acre-feet by the year 2035. And if you include the consumptive water use associated with the energy production that is needed to run data centers, you are looking at something like 90,000 acre-feet by the year 2035. And for context, as I am sure you all know, Nevada's allocation of the Colorado River is limited to 300 acre-feet per year currently, so that is a significant chunk of water. Next slide, please.

There are some water-intensive challenges associated with AI and data centers. Freshwater use remains smaller than many traditional water-using sectors, but it is important that you think carefully about how a new, fast-growing, water-dependent industry has the potential to impact your state's freshwater systems, and I think there are a couple of things worth considering here. First, as a hot, arid state, there are a combination of factors that shape how data centers will use water in your state. First are cooling technologies. Evaporative cooling and refrigeration are very efficient ways to cool, but they are also much more water intensive than alternatives that might be viable in other cooler regions like passive cooling.

And then I think the second thing to consider is power generation and your energy mix. Nevada gets roughly half of its energy generation from natural gas, which is an efficient energy generator, but it is often consumptive of water, and I recognize that power plants in Nevada use highly efficient water use technology. But it is something to consider, as more energy is being brought online, there is a water need for cooling the facilities that generate that energy, and that is something that you will want to take into consideration as you are thinking about data center policy.

In some data centers in Nevada and data centers across the Southwest will have a different water footprint and a different set of water needs than similar facilities in other parts of the country, and so they will require different approaches that are tailored to the needs of the state.

Chair Anderson:

Mr. Seebach, I am just going to remind you that combined, you have about 15 minutes for the presentation, so you have about 2 minutes left, and since we did not receive a copy of the PowerPoint, I am not sure how much more of the PowerPoint you have left.

Mr. Seebach:

I have one more slide, and I will be done in probably less than two minutes.

Chair Anderson:

Perfect. Thank you.

Mr. Seebach:

Thank you. Finally, I would like to conclude by sharing some recent findings from our colleagues and building mates at the Pew Research Center, which touch on public attitudes towards the use of the water and energy use of AI. This is from a survey of 8,512 U.S. adults taken this January. I think from that survey it is fair to say that Americans see both opportunity and risk in the development of new data centers. Most people appear to be still learning about the issue, but for those who have an opinion, nearly twice the amount of respondents believe that new data centers will have a positive impact on new local tax revenue than people who think there will be a negative impact. However, 39 percent of respondents see mostly harmful effects for the environment versus 4 percent who believe that data centers will have a mostly good effect on the environment. And 38 percent of respondents feel that data centers will be mostly bad for home energy costs versus 6 percent who see a mostly good effect on those costs. So I think, again, those numbers are still less than half of respondents, so I think a lot of people are still learning and still trying to understand what data center development means for them, but there are some signals that people are tuned into the impacts on the environment, water use, and energy use. And that is all I have.

As this Committee continues to work through new opportunities and challenges presented by this industry, we are happy to work with you to help you find and develop the solutions that work best for Nevada. Thanks very much.

Chair Anderson:

Thank you. Are you ready for a few questions?

Mr. Seebach:

Certainly.

Chair Anderson:

Before I actually open it up to the Committee, I do have one very quick question for you. Can you please email to our Committee Secretary that portion of your PowerPoint so we can post it online for people to see as well? I think we missed that deadline. All right; I do have a few questions. First, let us go with Senator Nguyen.

Senator Nguyen:

Thank you, and thank you for that presentation. I have a question if you have had the opportunity during the course of your research, you know a lot of this was centered around data centers and the collection of data in the United States. Have you looked at any other efforts or policies internationally or in other arid similar climates internationally to see what kind of efforts they implemented?

Mr. Seebach:

I will speak for myself and then let [inaudible] add. No, we focused on the United States.

Mr. Begala:

Yeah, thank you. Nothing to add.

Chair Anderson:

Did you have a follow-up, Senator?

Senator Nguyen:

Not with them. No, I was just curious if they had any of that research. I think there are some other organizations that might be able to provide that, but thank you.

Chair Anderson:

Thank you. Assemblymember Gurr.

Assemblymember Gurr:

Thank you, Chair. Thank you for the presentation. Back in the first part, you had, I think it is your fifth or sixth slide on data center power. Down on the bottom, you said that, or it states that, 1.3 megawatts go to residential, which is 100,000 homes. How does that—without doing the math, I could not do it quickly in here—if you build that with the 4,500 megawatt data center that is being built in Homer City, how many homes would that supply with power?

Mr. Begala:

Thank you for the question, Assemblymember Gurr, and both Chair Watts and Chair Anderson. I would offer that—I cannot do that math off the top of my head either—and I would just refer to the calculation there that is on the slide, to be able to make that estimate. I would also just say very briefly that those estimates of how much power a home uses does vary across the country. And so, each region is going to have a slightly different footprint per home on a per home basis, and that specific data center is being built in Pennsylvania.

Assemblymember Gurr:

That was my problem, doing the math that quickly.

Chair Anderson:

Do not forget to press the button, please.

Assemblymember Gurr:

It is pressed.

Chair Anderson:

Good deal.

Assemblymember Gurr:

It keeps going on and off. Sorry, Chair.

That caught my attention as to the potential use of power in Nevada and what we need to do for housing growth, and it just caught there and thought if there was some way to compare it, it would be fine but . . . Thank you, Chair.

Chair Anderson:

Thank you. Assemblymember Karris.

Assemblymember Karris:

Thank you, Chair. And gentlemen, thank you for the presentation. Your data seems, to me, to be based on old system water cooling and not the current standards of a closed loop system. Is that correct? Do we have anything from your studies? Because Nevada is in the very early stages of data centers, we are nowhere near at all what somewhere like Virginia is dealing with. We have very few that were already established using the old technology, and from what I understand, the current build-in requires a closed loop system. If it is not required yet, we are going to make it so—so can you tell me if your data was based on more open loop or more closed?

Mr. Seebach:

Sorry, there are two of us, so we were waiting to see who would jump in.

Thank you for the question. I actually do not have an answer to that, but I can get that for you and get back to you with that answer.

Chair Anderson:

If you could send that to the entire Committee or to the Committee Secretary, that would be wonderful so it can be shared for all of us. Assemblymember, did you have any other further questions?

Assemblymember Karris:

I did not, Chair. Thank you.

Chair Anderson:

Thank you. Assemblymember Kasama.

Assemblymember Kasama:

Thank you, Chair. Thank you for all the information. My question is, I am looking at one of the graphs here you presented on from Grid Strategies near-term electricity demand drivers vary by region. And I am just curious if you could give some maybe oversight where I am looking at a growth in data centers here in Phoenix area, southern California, which are more arid climates. We are looking at growing in our state as well. And if you could shed why you think there is a driving force in some of these arid areas where we look at the Northeast and the Pacific Northwest where certainly they have more water. Is it driving in these areas because they are dry climates and that is more important for the data centers? Is it because the power is cheaper in these particular areas? Just kind of an oversight why you think we continue to see demand and growth in some of these arid communities.

Mr. Begala:

Assemblymember Kasama, thank you for that question, and Chair Watts, Chair Anderson. I would just offer that data center developers are going to make decisions on regional clustering for a variety of reasons, including local tax incentives, land use cost, power cost,

water cost. And the clustering that began in Phoenix, I cannot speak to that. I would actually defer to the data center developers themselves and to ask them why that became an early cluster. It is just something that we very clearly observe in the data.

Assemblymember Kasama:

Follow-up, Chair?

Chair Anderson:

Please.

Assemblymember Kasama:

So, it is not particularly because of climate factor as far as the weather in each different area, it is more driven by taxes, costs; is that correct?

Mr. Begala:

I cannot speak exactly to the combination of factors that a data center developer . . .

Chair Anderson:

Please remember to state your name every answer. I know it is kind of tough. And also, please go directly to the member.

Mr. Begala:

Thank you. Yes, member. Sorry, I forgot which member is asking the question, but I cannot speak exactly to the combination of factors that a data center developer would consider when deciding where to site their location.

Assemblymember Kasama:

Thank you.

Chair Anderson:

Thank you. Any further questions? Seeing none thank you so much for your patience and for working around the schedule to be able to present today. I am sure we will have many follow-up conversations with you. Thank you.

We will actually go on now to the next item, and as I mentioned earlier, we are going to take an item out of order. So next up, we will have the presentation from X B, The Data Center Industry Updates, in particular from Google. It is [Agenda Item X B](#), excuse me.

AGENDA ITEM IV—DATA CENTER POLICY TRENDS: WATER, ENERGY, AND INCENTIVE POLICIES

Chair Anderson:

We have representatives from the National Conference of State Legislatures to discuss some of the policy trends that we are seeing in connection with data centers. As I am sure all of us can imagine, part of those trends are around revenue and tax abatements. That is in the

PowerPoint; however, our representative from NCSL [National Conference of State Legislatures] has been kind enough to possibly move forward from those, but I will turn it over to you whenever you are ready to please introduce yourself for the record.
([Agenda Item IV](#))

Tom Klein, Policy Associate, Environment Program, NCSL:

Thank you, Chair Anderson, and Committee for having us here and introducing us. I am going to let my colleague introduce himself as well before we jump in here.

Alex McWard, Senior Policy Specialist, Energy Program, NCSL:

I also appreciate the invitation to speak here today.

Mr. Klein:

With that, we are just going to jump right in. First, I will speak to this map here. I cover water policy at NCSL; that is in my portfolio, and we are going to talk about the landscape of water policy. This is a map that speaks to data centers and water usage legislation introduced in Legislatures around the country. What that means is a very broad range of things, and we will jump into that after this. But first, just to speak to this map, all of the states in yellow have introduced legislation on this topic. The states in green have passed legislation on this topic. The states in red introduced legislation on this topic in the last legislative session, which did not pass, and have not introduced new legislation in this session. And the states in purple have bills that were vetoed by their Governors. I do want to mention some updates to this map. Idaho has introduced legislation on this, and regarding Maryland having their bill vetoed, that was overridden by the Legislature so that bill is actually passed, so that could also be green on this map. Multiple states here could have multiple colors. For example, California does have introduced legislation on this topic even though the legislation from the last session was vetoed. I am going to move on here.

So, what is going on? As I mentioned, this should actually be 24 states have introduced legislation on the topic in this 2026 Session. Policy proposals, they stand upon multiple approaches. What works in one state might not work in another, including reporting requirements, permitting requirements, efficiency standards, and siting requirements. Four states—that should actually be five states considering the Maryland bill was overridden—five states have enacted legislation that addressed the data center water usage, and nine, or there should be ten states, have introduced bills in 2025 that did not pass. And, as I mentioned earlier, those three bills that were vetoed by Governors were in California, Maryland, New Jersey. And a big takeaway about this is that this is all really recent. As we learned earlier, data centers have been around for a while, but the policy activity we have been seeing is from 2025 and 2026. We are going to move on here.

Now we are going to talk about some of the mediums that this legislation encompasses. States are considering how to manage growing data center infrastructure, so legislation has been taking several different approaches. States have been exploring transparency and reporting requirements, water permitting and planning requirements, water efficiency and alternative water sources, and then also water resource protection measuring.

I think the first category here, transparency and reporting requirements, is the most popular that we have been seeing introduced in Legislatures. It essentially requires data centers to report either to the Legislature or to different state agencies the amount of water they are using, and if the data center has not been developed yet, some legislation has

been indicating that they would like estimates of how much water will be used in this site going forward. You see some examples here from Illinois, New Jersey, and Colorado.

Moving on to water permitting and planning requirements. Some states are seeking to introduce legislation that requires additional permitting, besides just the construction and development of these data centers. They are seeking permitting requirement regarding water to work with their departments of environmental quality or natural resources to discuss additional water permitting requirements for these data centers.

I am going to come back to the third column here about water efficiency and alternative water sources, just to go to water resource protection measures for a second. When it comes to water resource protection measures, some states are naming specific bodies of water—lakes, aquifers, freshwater sources—that they specifically want off-limits when it comes to data center usage, and we are seeing examples of that in Illinois and South Dakota.

Now, to go back to the third one here, water efficiency and alternative water sources. I want to go to a topic that I do not have a slide here prepared on, but I will speak to. We learned earlier about the differences between open loop data centers and closed loop data centers. Now, open loop, or evaporative cooling data centers, is the most intensive method when it comes to water consumption. Water is circulated through cooling towers, and a portion of it evaporates to remove the heat associated with data center activity. Up to 70 to 80 percent of the water withdrawn is lost to the atmosphere as vapor, so we are seeing states introduce and pass legislation about mandating or encouraging closed loop systems.

Now, a closed loop, nonevaporative cooling system in a data center works by recirculating air using cooling coils and fans, which deliver conditioned air back to the servers. So, two states have passed legislation that encourage this—not required, but encouraged—and those states are Minnesota and Kansas. And five states have introduced legislation requiring all new data centers developed to implement closed loop systems, and these states are Colorado, Indiana, Missouri, South Carolina, and West Virginia.

I have a master document with every single piece of legislation that has been introduced and passed on this topic, and I am happy to share that document with the Committee as well as answer questions after this presentation about what specific states have been doing on this. And with that, I am going to pass this over to my colleague, Alex.

Mr. McWard:

Excellent, thank you, Tom. I will be discussing some of the legislative trends we have seen around the energy consumption of data centers. We really started to see this emerge as a concern for Legislators around the beginning of 2024, when states started to introduce legislation on this topic. And this trend has only continued to expand since then, as last year, in 2025, we tracked around 70 bills introduced concerning the energy usage of data centers, and so far this year, we have tracked over 90 bills introduced. And examples of introduced legislation include setting reporting requirements for data centers, energy usage, demand side management measures, as well as setting standards to ensure equitable utility rates. I will discuss each of these policy topics in more detail during this presentation.

Perhaps the greatest trend we are seeing right now is how states are approaching the cost allocation and cost recovery of interconnecting data centers to the grid. The significant energy demands of data centers is raising a lot of concerns about how utility rates will be

impacted. Like we have said, the expansion of data centers is going to increase energy demand overall and will require new infrastructure investments for interconnection. This means new generation facilities, transmission, and distribution lines for a lot of proposed data centers. Now traditionally, a lot of large infrastructure projects such as these have their costs recovered through increased electricity rates. However, since some of these projects would primarily just be constructed to serve data centers and are not directly benefiting residential ratepayers, policymakers are now looking to see how to prevent these costs from shifting towards unrelated ratepayers.

And so, we really started to see legislation first emerge on this issue just this past year, and states have started to take a few different approaches. But first, California and Virginia, last year, both enacted the legislation requiring their public utility commissions to assess the impacts of new data centers on unrelated electricity customers to determine whether action is necessary, and they have until the end of the year to finalize that assessment.

The most common type of action we are seeing is the establishment of specific tariffs in customer classes for large loads like data centers. And so, electricity tariffs are structured pricing plans determining how consumers are charged for the electricity usage. Creating a new customer class for data centers or other large loads allows specific pricing plans that are separate from other utility customers like residential ratepayers.

Maryland went ahead and did enact legislation requiring utilities to submit a specific rate schedule for large load customers last year in 2025. The rate schedule must require large load customers to cover the just and reasonable costs associated with any electric transmission or distribution build-out required to interconnect or serve the large load customer. I want to note that this legislation does not specify data centers, but instead, it uses the term *large loads*, which it defines as “commercial or industry customers that have an aggregate monthly demand of at least 100 megawatts.” So of course, that does encompass a lot of data centers. And this is the language used in most state examples of this where they use the term large loads, but a lot of times the legislation is targeting data centers.

And so, we saw similar legislation to Maryland also enacted last year in Minnesota and Oregon. And then Utah, last year, also enacted Senate Bill 132, which set clear rules for the interconnection processes of new large loads to the grid. The bill requires large loads to pay for any interconnection- or transmission-related studies that are necessary, as well as any transmission or interconnection upgrades that are identified by those studies.

All right, moving on. Another trend we are seeing in states is demand side management programs or other measures to address data centers and their energy consumption. We have seen a lot of different approaches to this in the past year from states. One of the more significant data center bills enacted last year was Senate Bill 6 in Texas, which set new interconnection rules for large loads. One of the requirements is that loads of 75 megawatts or greater looking to connect to the grid must participate in a mandatory demand management program. This program mandates that large loads have shutoff equipment installed as a condition of their grid interconnection, and utilities may then disconnect these eligible loads during firm load shed events.

We also have states looking to incentivize the use of distributed energy resources to provide power directly to data centers. The greatest example of this perhaps last year was with House Bill 2014 in West Virginia. West Virginia is very much looking to promote data center growth within the state, and this bill created the High Impact Data Center Program to help data center development. However, the bill also created the Microgrid Development Program to encourage the use of microgrids to provide energy to data centers. So microgrid is a group of interconnected, distributed energy resources that can operate as a controllable entity and allowing it to disconnect from the grid and run on island mode. The bill requires a designated liaison to serve as the point of contact for microgrids and data centers to coordinate their development.

Then, looking at some legislation introduced this year. Kansas introduced legislation to establish a regulatory framework for what it calls "private energy campuses." These private energy campuses are privately-owned properties that can generate, store, and provide electricity directly to large loads located within the property boundaries. Electricity generated on these private campuses cannot be delivered outside of the property's physical boundaries. With this framework, the legislation exempts these private energy campuses from a lot of the traditional public utility oversight, therefore aiming to facilitate the development of on-site energy generation for data centers.

Then also this year, both Colorado and Virginia have introduced legislation that would require data centers to maintain certain energy efficiency standards in order to maintain the tax exemptions that data center operators receive for their equipment.

And then finally, similar to what Tom discussed with water, we also have states considering legislation that would require data centers to regularly submit reports on their energy and water consumption to the state. Will the reports vary per state? For the most part, they include total energy consumption, reports on the data center's energy sources, and any energy efficiency measures that have been implemented.

We have seen quite a few examples of states introducing legislation with these reporting requirements. New Jersey and a few other states all introduced legislation last year, and so far, this year, California, Oklahoma, and Utah have introduced legislation this year. We have actually not really seen significant legislation like this enacted yet. I think there may be some opposition to this kind of legislation. There are thoughts that there is some opposition to this kind of legislation due to concerns that it will set too strict of oversight, restrictions on data centers that could drive them to locate in other states with less rigid requirements. In California, Governor Gavin Newsom cited similar reasons for his veto of a bill that would have required a water consumption reporting last year. Then, regarding this New Jersey veto that I have here, the Governor explained that the decision to require reporting should be left up to the Board of Public Utilities and that the metrics should remain confidential, whereas the bill would have made them publicly available.

As we discussed, we were going to also present on some data center incentives, but due to the time constraints, we understand the need to move on. And so, for now, we are happy to take any questions that the Committees may have.

Chair Anderson:

Thank you so much, and thank you again for understanding about the incentives. I think it is a really important thing for us to know about, but also, we have got to move on. So first, are there any questions? All right. I am trying to wait to see if there is anybody in Vegas that will be jumping in. I do have a question while we are waiting a little bit. With the

water efficiency and alternative water sources, the conservation practices, with that information, is that under law or is that more of a policy-type of thing? Or how exactly have they created what those conservation practices are defined as?

Mr. Klein:

Thank you for the question, Chair Anderson. The legislation that we have been seeing about the water conservation . . .

Chair Anderson:

Do not forget to say your name, please.

Mr. Klein:

No worries. Legislation we have seen has been policy recommendations/encouragements within state legislation encouraging state Legislatures to use things such as brown water, recycled water, and also closed loop systems in their hardware. It has not been in the law yet that it "must be." The two states that did pass stuff on that, Minnesota and Kansas, had language that "encourages" this usage instead of "requiring."

Chair Anderson:

Thank you so much. Unsure if you heard that or not; the mic sometimes likes to cut out. Any further questions? All right. Hearing none, I am sure we will be able to contact you if we do have some more. And again, thank you for this very thorough information and how quickly and how easy it was to work with you. Thank you again.

AGENDA ITEM V—CALCULATING DATA CENTER WATER AND POWER NEEDS

Chair Anderson:

All right, we will move on to our next presentation, which is Number V, Calculating the Data Center Water and Power Needs. Next on the agenda we have a presentation from the Desert Research Institute on calculating water and power needs. Thank you, Dr. McKenna and Mr. Henzl for joining us here in Carson. Please go ahead whenever you are ready. And do not forget to introduce yourself for the record every time you speak.

Sean A. McKenna, Ph.D., Senior Program Developer, Executive Director, Division of Hydrologic Sciences, DRI:

Thank you. Good morning, Chair Anderson, Chair Watts, and Committee members. My colleague Mr. Henzl and I are going to provide a summary of a report that we have worked on over about the last nine months. That report is available at DRI.edu/datacenters. At DRI, we are self-funded agency or organization, and this work was funded by the National Science Foundation. ([Agenda Item V](#)).

This map was shown previously, and this is looking at data center infrastructure in the U.S. This has been compiled by the National Renewable Energy Laboratory, and what you are seeing on there are catalysts for growth for data centers in Nevada, as we have heard about this morning. And including the proximity to the key markets in the Bay Area, those photons can travel on the fiber optics that is shown in the white lines here in a matter of milliseconds to the Bay Area. Thicker the white lines, the more capacity on those fiber optic lines. And then the lines and the colors are showing the electric grid. Red lines are

735 kilovolt transmission lines and above. And then as you go into orange and yellow, those are smaller transmission lines. And you can see where northern Nevada sits in that. This map has changed rapidly over the last few months. This is the version that came out in November of 2025. The previous version had northern Nevada as one of the top three centers for growth in the U.S., along with northern Virginia and the Phoenix metro area. We have also found other reports that have shown northern Nevada in the top five globally for data center growth, so we are really on the forefront of this here in Nevada.

We are going to talk a little bit or show a little bit here about that projected growth and energy. Every number that you see in this table is in megawatts. Megawatts are a measure of power. Megawatts over some time or watts over some time is a measure of energy. Gigawatt hours is energy; megawatts is power. This information comes from the IRP, the Integrated Resource Plan, that was published by NV Energy in 2024. And looking at low growth in northern Nevada and across Nevada, and what you see . . . I will just point out a few things on this graph and the top line operating shows Washoe, Storey, and Clark County's operating data centers and their loads in megawatts, and you can compare that to northern Virginia and the Phoenix metro area. While we are not anywhere near the size of those two areas yet, if you look at the planned row near the bottom, we are right up there, very much in line with the growth that is expected in those two leading areas, at about 5,900 megawatts.

When it comes to water, at this point, size matters. What I am showing here are different cooling technologies and the different colors, and it is a little difficult to read, and looking at a couple of different sizes of data centers from 1 to 5 megawatts up to 100+ megawatts. Just looking through that right now, smaller data centers are using less water per kilowatt-hour right now than the larger ones. Cooling technologies, as we have discussed this morning, are changing very rapidly. Closed loop systems, liquid across the chip systems. It is very difficult for us to get up-to-date, current technologies and their water use from the data center developers.

I want to just give a little local perspective on this. You can see the size of megawatts across the top of this chart. The data center that is being built at Keystone and Second has been reported as being 12 megawatts in size. The data center that has been proposed in Mason Valley is on the order of 1,000 megawatts, just to give you some idea of the sizes.

A little bit about how we develop and determine water use by data centers. We use something called "water usage effectiveness," or WUE, and that is a measure of how efficiently data centers are using water. And it is measured in volume gallons or liters per kilowatt-hour of use by that data center. There is two types of water use: direct use—and that is used by the data center for cooling; and indirect use—and that is generally water used to generate the electricity or the energy that goes into that data center. Industry standards right now, as we have been trying to keep up, low water use efficiency, medium WUE, high WUE. You can see the different numbers there in liters per kilowatt-hour. And then from NV Energy, we have the average water use to generate a kilowatt of energy for Nevada.

I am just going to give you a few numbers here. If we look at a 100-megawatt data center, so somewhere near the top end of that graph I showed in the last one, we use the medium WUE, we are looking at about 290 acre-feet a year in direct use and about 370 acre-feet a year in indirect. So, a 100-megawatt data center using these numbers Nevada centric and medium WUE would give us about 660 acre-feet a year per 100 megawatts. I am going to turn it over to my colleague, Eric, and we will continue.

Erik M. Henzl, Staff Research Scientist, Environmental Economist, Division of Hydrologic Services, DRI:

Yes, thank you, Sean. Using those industry water usage effectiveness rates, or WUEs, combined with data center load growth as projected by NV Energy, we developed this high, medium, low framework for estimating data center water demand. Following the buildout period to 2033, what we observed is that the generation of 25,590 gigawatt hours may require almost 12,450 acre-feet per year, and for cooling under a medium WUE scenario, more than 9,600 acre-feet per year may be needed. In terms of cost, the price of electricity, by far the steepest cost, may total a bit more than \$2.8 billion annually. Notably, we estimate that the water needed for electricity generation exceeds the water needed for data center cooling. This will depend on the data center's WUE versus the water intensity of electricity generation. In this case, the latter is greater than the former.

The scale of Nevada's data center expansion may be better understood by way of comparison. So here we have our medium WUE scenario, and we see that the water needed annually for data center cooling under that scenario is equivalent to the water needed annually for about 32 golf courses, almost 12 alfalfa farms, or more than 28,700 households. And with respect to energy demand, new data center low growth represents 56 percent of Nevada's net generation, and plant capacity amounts to almost three times the capacity of Hoover Dam. And so, it is worth noting also that according to the Energy Information Administration, Nevada consumes more than ten times the energy that it produces.

This rapid growth may entail numerous challenges. Perhaps chief among them is data center clustering, which can exacerbate grid stress while putting upward pressure on costs. Moreover, the state's ability to get new supplies online may be challenged by factors like the lengthy interconnection queues, supply chain disruptions, increasing material costs, and shortages of critical grid components and electrical trade labor. These challenges create concerns with respect to increasing stress on energy and water resources and the potential for tradeoffs with other stakeholders and priorities like electrification and affordability.

Importantly, however, there are opportunities to help alleviate some of this demand, and some of these may include the use of reclaimed water, highly efficient cooling technologies, and load flexibility. The idea that data centers curtail their energy use for some percentage of the year, primarily during peak load hours.

However, there remain some uncertainties that complicate our efforts to navigate this rapid growth. Some of these uncertainties may include project completion rates, the pace of efficiency gains versus data center demand growth, broader economic uncertainty, whether our grid will be able to keep pace with the rapid data center buildouts. With respect to water, how data center water use is categorized and accounted for, and this is in reference to some data center water rights apparently being categorized as municipal.

The availability of water also remains a concern, and Nevada's propensity for drought combined with over appropriation creates further uncertainty. It is worth mentioning, however, that DRI is currently working with DWR [Nevada's Division of Water Resources] and USGS [United States Geological Survey] in updating our understanding of water availability of the Nevada Water Initiative. This is all to say that the work of modeling data center demand is complicated by these factors, and there exists a considerable need for more data, especially at the site level.

To begin concluding, I would like to summarize some key takeaways. First, indirect water use comprises the largest share of the data center's water footprint, and it is the cooling technologies and generating resources in place that will shape water intensity. Electricity is the steepest cost, about \$2.8 billion per year for the 12 projects discussed here, and there are, however, several opportunities moving forward to help offset some of these demands. One key opportunity is advanced cooling technologies like direct liquid cooling, which several have referenced already. But uncertainties remain, and this makes the work of research and policymaking and other decision-making more difficult. What is clear is that there exists dearth of publicly available information, and this may make it more difficult for communities to make informed development decisions.

Ultimately, Nevada's data center boom presents this opportunity of positioning the state as a key player in the increasingly digital world. We must navigate various challenges and uncertainties to ensure that this development unfolds sustainably. With that, to learn more about DRI's data center research efforts, you can visit DRI.edu/datacenters. Thank you.

Chair Anderson:

Thank you so much. Are you both ready for some questions? Thank you. We will actually start first in Las Vegas with Chair Watts please.

Chair Watts:

Thank you. Thank you for that presentation. You know, when you talk about the water intensity of power generation, you noted that you got kind of an aggregate figure. Do you have any information on the water intensity of various generation sources? So, solar versus gas, versus geothermal, et cetera.

Mr. Henzl:

Yes, thank you. We do not have exact figures for the water intensity of electricity generation by generating resource. What we do have is the grid average reported by NV Energy, but my understanding broadly is that more water may be consumed for nonrenewable generating resources than for renewable generating resources. Does that answer your question?

Chair Watts:

Yes. Thank you, and my understanding is that we are continuing to increase the percentage of our generating resources that are from renewable energy but currently are still less than a majority. I guess the follow-up question would be, based on that understanding, we continue to increase the share of generation that comes from renewable energy resources, that should reduce the overall water intensity per kilowatt generated. Is that your understanding as well?

Mr. Henzl:

Yes. The grid, as the combination of generating resources in the grid shifts toward more renewable resources, it would stand to reason that that water intensity, the 0.6 liters per kilowatt-hour, could fall further.

Chair Watts:

Thank you very much.

Dr. McKenna:

If I may add to that, Chair Watts. Nevada is also a very large net energy electricity importer. So, what we do in the state is one piece that we can control, but it is also affected by where we pull that energy from. Thank you.

Chair Anderson:

Did you have a follow-up, Chair?

Chair Watts:

That is it for me. Thank you.

Chair Anderson:

I do actually have a quick question. I do not know if it is a quick question or not, actually. When you brought up the challenges on slide eight, it started making me wonder, is this a seasonal challenge? You know how sometimes we have electricity go up and down during specific seasons and we have higher water usage, lower water usage. Is there ever a seasonal time frame, or is this a constant usage around both water as well as electricity of the data centers, and how they are set up? I am not sure if that has been part of your research or not.

Mr. Henzl:

This is not really a central part of our research. What I would say is that it probably depends on the data center space type and its purpose. There are some data centers that require pretty much 24/7 demand and that is because they are servicing data storage and management needs or AI queries that need an immediate response. But again, the seasonality is not something that is really considered in our work.

Chair Anderson:

Appreciate that answer, because it literally was something that came to my mind when you were presenting. The other question—it is, and I am just going to ask you guys to possibly go into an uncomfortable spot. The current snowpacks, the current rain, and the current water situation that we are facing in the state, do you believe that our state, in your academic world, do you believe our state can handle the water usage at this time as being forecasted with the current levels of our data centers?

Dr. McKenna:

I think one thing I would point out here is that all data centers are local. So, where the water is being sourced, where the electricity is coming from, if that is a microgrid or onsite gen, that all depends. I think that it is difficult to look at this year's snowpack and say for any particular data center will they have issues or not. Certainly, encouraging data center growth, those data centers to have the water rights that they need and accessibility to that, is critical.

Chair Anderson:

Thank you. Any further questions? I will give it a moment for those people that might be on electronically unless we lost Mr. Ellison. Senator? All right. I am not seeing any more questions, so you guys are off the hook. Thank you so much for your presentation, and I am sure we will be talking with you further. Thank you.

AGENDA ITEM VI—MANAGING ENERGY LOAD, INFRASTRUCTURE IMPACTS, AND RATES

Chair Anderson:

So let us move into now the next item on our agenda—managing the energy load, the infrastructure impacts, and rates, which I believe is something that many people are interested in.

A. PRESENTATION BY NV ENERGY

Chair Anderson:

Our first presentation is from NV Energy. I believe we have Mr. Sanchez in Las Vegas and Mr. Elisegui—I am sorry if I mispronounced that—in Carson City. Thank you for joining us today, and when you are ready, please introduce yourself. And again, please accept my apology if I mispronounced your last name.

Tony Sanchez, Executive Vice President, Business Development and External Relations, NV Energy:

Thank you, Chair Anderson, Chair Watts. It is a pleasure to appear before the Joint Committees today. I am joined by two of my colleagues based in Carson City. With you there is Shawn Elicequi. Shawn is our Senior Vice President for Regulatory and Resource Planning. I have also invited with me to my left here in Las Vegas, Jeff Brigger, who is our Vice President for Business Development and Programs. Between Jeff and Shawn, all contact with data centers first comes in through those departments and so they can answer any specific questions. What we thought we would do is give you just a quick overview of our process and then certainly be available to answer questions at your convenience. ([Agenda Item VI A](#))

I would say at the outset, NV Energy delivers reliable, affordable, and safe electricity and energy resources to 90 percent of the State of Nevada. We are committed to serving qualified load, which includes data centers, on terms and conditions that our Public Utility Commission of Nevada find are in the public interest. I want to say very clearly and upfront that likewise, we are equally committed to protecting existing customers, maintain system reliability, and meet state energy goals. NV Energy does not advocate for or against specific types of development. Our role is to ensure that Nevada leaders have clear, fact-based information to make informed decisions.

I do want to note for the record, Nevada's affordable rates' track record over the last two decades. What many may not know is that Nevada's electricity rates and prices remain among the lowest in the nation, something we are very proud of, and that is according to the latest data from the U.S. Energy Information Administration. Through December of this

last year, Nevada's average retail price for residential customers was 60 percent lower than California's as well as 4 percent lower than the national average. Load growth must be managed responsibly and cannot come at the expense of affordability for households, small businesses, and industrial users.

Something that we are also very proud of, at our company, which has been around since the days of lighting the underground gold mines in Virginia City, is that our 2,700 employees, along with our Foundation, are committed to investing time and resources around our state, and the state that we all love and choose to call home. Last year our Foundation and employees donated more than \$6.4 million and close to 40,000 hours of volunteer time.

At this time, I turn it over to my colleague, Mr. Elicegui, to start walking you through how we do planning for this type of load that is the subject of today's hearing. I will turn it over to Sean.

***Shawn Elicegui, Senior Vice President, Regulatory and Resource Planning,
NV Energy:***

Good morning, Chair Watts, Chair Anderson. Thank you for the opportunity to appear before you today to discuss how the company plans for data center load as well as all other load. The last presentation focused on our 2024 IRP [Integrated Resource Plan]. We are currently in the process of developing and building our 2026 Integrated Resource Plan. Integrated Resource Plan is a commission-supervised process through which we involve public planning, and we identify the load that we intend to serve. We develop a set of resources, whether that is generation, storage, transmission, distributed energy resources to meet that load, as well as demand side management. The goal of that process is to identify a low-cost, reliable plan that will serve Nevada's energy future.

In the upcoming IRP, we are going to conduct scenario analysis. Our scenario analysis will include a low or no data center expansion plan, a projected data center expansion plan that is based on standard resource planning assumptions and load mitigation, which assumes data centers build-out at some partial level of development. Then a full data center development plan, and the purpose of which is we can then identify the infrastructure, the costs, the timing of resources, and all clean energy resources needed to meet each one of those plans so that we can provide a forum of objective information for regulators and stakeholders to identify which path best protects Nevada's energy future.

Consistent with our commitment to customers, and while we stand ready to serve growth, we cannot do so at the expense of affordability or reliability, so our focus is on ensuring that the rules that we will propose through this Integrated Resource Plan for large load customers make sure that the infrastructure needed to serve those customers is paid for by those customers. That is the summary of our planning process.

I will move on to our next slide, which I believe Mr. Sanchez is going to address. I can address this slide as well. This slide essentially says what our core tenets are. Number one, growth has to be managed responsibly and cannot come at the affordability of, or at the expense of affordability and reliability for existing customers, be that small households, small businesses, or industrial user. Second, large energy users and developers of land for large energy users need to be responsible for paying their own way to

avoid creating upward pressure on rates. The infrastructure built for data centers must be paid for by those customers. We will set out a framework for doing that in this 2026 IRP. It will include a form contract that eventually could transition into a tariff, some of the ways that prior presenters identified as a means for addressing data center load growth.

Move on to the next slide. I will be really brief here because I think folks touched on this topic. Nevada is identified, in particular, northern Nevada, as a hotspot for data center development growth. I think the slide that DRI and NREL [National Renewable Energy Laboratory] showed that identified the proximity to fiber, land, what is relatively affordable electricity, and a climate that is conducive particularly in northern Nevada to cooling is one of the attractiveness of northern Nevada. We do have data center growth.

Moving on to Nevada-specific growth. The information that NREL provided—or DRI provided—is a little more updated than my information, so that is a good source of data. We do have approximately 22 gigawatts of interest in the State of Nevada. This slide is a little behind the time. Six gigawatts of contracts to build the distribution and energy or transmission infrastructure to meet data centers load. Over 80 percent of those contracts are for additions in northern Nevada, primarily in the Washoe County and Storey County area. I think it is important to note overall, the system that we have is 9 gigawatts. That is not a statewide system. Northern Nevada peaks at approximately 2,200 megawatts or 2.2 gigawatts. We do see expansion requests in northern Nevada that would require two to three times the size of the system we currently have.

Our ultimate objective, again, is to meet responsible growth. We do not choose what development wants to come to Nevada. Our job is to develop a plan to meet the needs of good development, whether it is farming, whether it is gaming and hospitality, whether it is distribution centers, or residential development, or data center developments.

I believe that ends our presentation and be happy to answer any questions that the Interim Committee might have.

Chair Anderson:

Thank you so much. And I know the microphone sometimes in here is wonky, so thank you very much for the presentation. I believe we do have a few questions, and so we will start off first with Chair Watts.

Chair Watts:

Thank you, and thank you all for the presentation. I guess one of the first questions that I had is— This was talked about a little bit previously, but you know we are seeing these massive projections, and we are also hearing about data center developers kind of shopping around. They want to—they are looking for the combination of costs and also timeline to get operational quickly. And so, we know that there are entities that are exploring locating in multiple places. The question I have is, what are the processes that you currently have in place to try and identify and potentially weed out one, speculation, and also identify if an entity might be exploring multiple locations to ensure that the queue of potential customers is accurate?

Mr. Sanchez:

Thank you, Chairman Watts. I would first want to defer to our Vice President, Jeff Brigger, who is the first line of contact that these data centers make and then Shawn can supplement that.

Jeff Brigger, Director, Business Development and Major Accounts, NV Energy:

Thank you, Tony. Thank you, Chair. A great question. We have a process that we enabled, through what we call an engineering study, and that has advanced requirements at certain thresholds of dollars that they would have to provide NV Energy to complete studies based on the loads that they are requesting for. That is really the first line to try to weed out some of the speculation.

Mr. Elicegui:

Thank you for the question, Chair Watts. In addition to that first line of defense, when a customer intends to move forward, we require advances for the cost of distribution and high voltage distribution facilities. And those advances are generally identified to equal the cost of the investment the company will have. That is one tool that is designed to ensure that customers who want to move forward have skin in the game. And then second, it is also designed to mitigate the upward pressure, the potential upward pressure on rates. The third tool is one that we are developing, will include in the Integrated Resource Plan filing. It is what we call the "large load energy supply agreement," and that deals with generation and energy supply as opposed to the transmission and distribution facilities. It will have similar protections to: (1) ensure the customer has skin in the game; and (2) to protect against upward pressure on rates. These will include security requirements, minimum bill requirements, as well as customer-specific generation charges and charges that are based on the large portfolio of renewable resources that we will bring forward. So, in this IRP filing, we will likely bring forward more than 4 gigawatts of solar energy, more than 5 gigawatts of battery storage, and more than 150 megawatts of geothermal production. These contracts that we will expect large customers to sign will ensure that the cost of those resources is paid for by the customers who are signing the contracts.

Chair Watts:

Thank you. Follow-up, Chair?

Chair Anderson:

Please.

Chair Watts:

Great. Thank you. I think one quick thing— I just want to confirm that the direction that the utility is heading is making sure that other ratepayers are fully insulated from potential rate increases both for generation, transmission, and distribution related to serving new data center growth, that all of those aspects are being considered. And then I just have a question about when we will be getting what the timeline is looking like for that IRP in terms of members of the public and members of the Committee being able to see these proposed new contract terms for large load customers.

Mr. Elicegui:

Thank you for the question, Chair Watts. Yes, we are evaluating all aspects of the grid to ensure that costs are borne by the customers who seek interconnection, that includes the generation, distribution, and transmission facilities. We intend to file the Integrated Resource Plan in April. So, April 30; we have held three stakeholder sessions. We do have an upcoming consumer session. More importantly, we can provide to the Committee a copy of the form large load energy service agreement; because that was filed with the Public Utilities Commission in response to an investigation that the Commission is conducting. ([Agenda Item XIII E](#)). We can submit that to the Committee. It is continuing to evolve. Once we send out the last version, we will also supplement our filing with the Public Utilities Commission and send that most recent version to the Committee as well.

Chair Watts:

Thank you. That would be great. May I have one last question, Chair?

Chair Anderson:

Please.

Chair Watts:

Thank you. You discussed essentially these contracts potentially moving towards a tariff class. And I know that the utilities has also been working on updating some of its rules. Could you just discuss why you have worked on the contract and updating existing rules on the front end versus pursuing a dedicated tariff, which, as we have heard, is a topic that has been brought forward in other states for consideration.

Mr. Elicegui:

Thank you again, Chair Watts, for the question. Yes. It was really a matter of timing. We were in the process of preparing our Integrated Resource Plan and in connection with that Integrated Resource Plan, we knew that we needed to obtain commitments from customers who are seeking service as well as specify the terms and conditions under which we believe they should be served. So it was just— It was frankly a matter of timing. And then second, because the Integrated Resource Plan will have those scenarios I discussed, we believe it will provide a forum, a public forum, to identify the costs associated with each one of the different paths: the low to little data center path, the kind of standard resource planning path; and then the full data center buildout path. We believe the cost, the infrastructure, and the timing of that infrastructure will be in front of the Commission so that will allow policymakers and regulators to have the objective information they need to make an informed decision about what are the right terms and conditions under which data centers should be served.

Chair Watts:

Thank you so much for all of that information and the answers to your questions. So yes, if you can follow up to get that information that is already available to the Committee members as well as some of the relevant information once that Resource Plan is filed, that would be great.

I know one thing I am particularly interested in is how the RFP [Request for Proposal] that NV Energy issued, I believe last year, or potentially at the end of, yeah, sometime last year, how that overlays with the resources that are being brought forward in the next IRP. So, look forward to continuing to get information as that process moves forward. Thank you, Chair.

Chair Anderson:

Thank you, Chair. Next up, Assemblymember DeLong.

Assemblymember DeLong:

Thank you, Chair. Thank you very much for the presentation; very informative. I want to follow up on Chairman Watts's questions to a certain degree. I think you mentioned that if you have a customer, a large load customer, come to you, you require them to put essentially down deposits on your capital investments. I do not know if I am phrasing that correctly, but it sounded like that is what you are doing, which I do think is a good thing. My question is how much risk is there in the process you have to have someone back out of actually committing to finalizing their financial commitments to you, whether it be the upfront dollars or actually buying the electricity, and you end up building infrastructure, whether it be transmission, generation, or distribution that becomes a stranded asset? And then the entire ratepayers would then have to deal with that stranded asset.

Mr. Elicegui:

Thank you for the question, Assemblyman DeLong. I appreciate that. I will try to break that down. One, distribution and high voltage distribution facilities, we do require what is essentially a deposit. We require an advance for the full, estimated cost of the facilities upfront. That is subject to refund when revenue associated with those facilities begins to show up. So, we invest over time once the revenue is in the door, and we understand that the load is arriving.

With respect to generation, what we will attempt to do in this large load electric supply agreement, one, is to have costs—these customers specific generation charges—the bill component will be charged and received while the facilities that we need, which will typically be fossil fuel generation, are being built to serve those customers. The goal ultimately is to have an investment in those new facilities that is equal to our embedded investment so that we are not putting any upward pressure on rates and minimizing the risk of stranded assets.

Then the second is just a planning approach. So, what we will attempt to do is identify more modular buildouts and wagers that are smaller. For example, we do not intend to wager on large, combined cycle generating units that are binary decisions. Once you commit to that, you are committed to a \$4 billion power plant. We identify and we see as being responsive when it comes to fossil generation peaking units, which are air cooled. Water is used optionally in those units, not to cool the turbines, but to enhance performance and primarily in the emission control process to remove NO_x [nitrogen oxide]. There are also abilities to not use water in those units. Those have a lower capital cost, so the likelihood is of a smaller stranded asset, if any. But with the protections in the agreement, which includes security and the customer-specific generation charges, our goal is to minimize the risk of any stranded investment.

Assemblymember DeLong:

Thank you very much for that. Thank you, Chair.

Chair Anderson:

Thank you. All right. Any others? See none. I actually do have a question. It is more about the water usage, although you are speaking about energy and totally makes sense. How much water usage is currently utilized by NV Energy, and then, with the data centers, how much are you anticipating that to be changed?

Mr. Elicegui:

I have to apologize in advance for disappointing you. I do not have the answer to either of those questions, but those are questions that we can follow up on and provide an answer in writing. ([Agenda Item XIII H](#)).

Chair Anderson:

We greatly appreciate it, because I understand you are here for energy first, but I do also believe there is some water usage by the energy groups.

Mr. Elicegui:

Absolutely. We do have generating units that use water and consume water.

Chair Anderson:

Great. Thank you. Okay, last time. I am double-checking—one quick thing. I am not seeing anything, so thank you so much for the presentations, unless you want to make any other remarks here or in Vegas.

Mr. Elicegui:

Just thank you, Chair Anderson, Chair Watts, and Committee members; appreciate the opportunity to share how we think about planning for Nevada's energy future.

Mr. Sanchez:

On behalf of—here in southern Nevada—echo Shawn's comments. And Chair Anderson, in response to that last question, 25 years ago we made a commitment during Governor Guinn's Repower Nevada efforts, to with the very large, combined cycle projects that Sean, Mr. Elicegui, mentioned earlier. A decision was made at the corporate level to have those be air cooled, and since then, we have closed, pursuant to legislation passed by this body in 2013, our coal assets in the state, which was the Reid Gardner, which was a heavy water consumption unit. That was closed in 2017, and we also have recently, more recently at the beginning of this year in January, closed our last remaining coal asset, which was at Valmy, Unit No. 2. So that water consumption has also decreased markedly. But happy to supplement those facts and figures with you as we move forward and appreciate the opportunity today. Thank you.

Chair Anderson:

Thank you. Thank you so much.

B. PRESENTATION BY THE NEVADA RURAL ELECTRIC ASSOCIATION

Chair Anderson:

We will now move on to the second portion of managing the energy load, infrastructure. And still Agenda Item VI. We will hear from the Nevada Rural Electric Association, and again, we have presenters in both Carson City and Las Vegas. I believe, Mr. Hamlin, you should have been on the agenda, so please accept our apology for it not being on there. I believe you are also here to present on the item. We appreciate everyone joining us today, and please introduce yourself for the record when you are ready.

Lisa Levine, Executive Director, Nevada Rural Electric Association (NREA):

Thank you, Chair Watts, Chair Anderson, members of the Committee. NREA [Nevada Rural Electric Association] represents the ten public power distribution utilities across the State of Nevada. We have a map later to demonstrate that. I am joined with my colleagues. We have a group today, so we appreciate your time and for the invitation. I will start with southern Nevada. We have MeLisa Garcia, who is the General Manager and CEO [Chief Executive Officer] of Overton Power District No. 5. We have Dane Bradfield, General Manager of Lincoln County Power District No. 1; Robby Hamlin, CEO of the Valley Electric Association. Then in northern Nevada in Carson City, we have Kevin Robison. He is the CEO of Mt. Wheeler Power, which is based in Ely. We also have Thad Ballard, who is the CEO of Wells Rural Electric Co-op. Collectively, they bring more than 150 years of experience managing public power, which does not mean they are old, but it certainly shows their expertise. ([Agenda Item VI B](#))

So just some quick background on who we are. Nevada's public power consumer-owned utilities have a very unique and different business model when we think about the electric utilities, certainly who we have heard from earlier today as well. The public power model is really to deliver affordable, reliable, safe, and resilient electricity. My members, they are owned and operated by Nevada ratepayers. They are locally governed. They have locally elected boards. Their boards are their ratepayers. Their general managers and CEOs are their ratepayers, so you can think about the accountability for that. And so, when we think about public power, there is typically three different types of entities that that includes. We have electric cooperatives, we have power districts, and we have municipal utilities.

With that, I do want to take a minute to invite my colleagues, who are also my board members, to talk a little bit about their utilities and where they are in the state. The map demonstrates that while the population sizes they serve may be smaller, geographically they are close to representing with their service territories combined about half of the land mass for the State of Nevada. With that, they certainly do have expertise in providing energy to large loads. We can think about agriculture in the state, mining, as well as small businesses, and defense. With that, I would like to start MeLisa Garcia.

MeLisa Garcia, General Manager, CEO, Overton Power District No. 5:

Good afternoon, Committee. For 90 years, OPD [Overton Power District] 5 has had the privilege of providing reliable, affordable electricity to the rural communities of Mesquite, Bunkerville, Overton, Logandale, and Moapa. As a not-for-profit utility in NREA, we are governed by a locally elected board of trustees. Each of our trustees live within the community we serve and is directly accountable to those residents. Among their core responsibilities, our board serves as our rate-setting authority, ensuring that decisions are made in the best interest of our customers.

In the past two years, OPD 5 has received inquiries and engaged in discussions with approximately 11 data center developers interested in locating within our service territory. As is typical in this process, some of these inquiries represent early-stage explorations across multiple regions while others reflect more defined and serious interest in establishing operations within our communities. In response, our board of trustees have actively engaged with the constituents they represent to better understand our local perspectives. These conversations have centered on several key questions. What economic benefits and developments could this mean for our communities, as well as what potential challenges and risks should we carefully consider, all by prioritizing affordability? As we evaluate these proposals, our focus remains on balancing opportunity and responsibility from resource adequacy and grid stability while also ensuring that any development aligns with the long-term interests, values, and sustainabilities of the communities we are entrusted to serve.

Ms. Levine:

We also have Dane Bradfield here, representing Lincoln County Power District.

Dane Bradfield, General Manager, Lincoln County Power District No. 1:

Thank you, Committee members. It is an honor to be in front of you today. Much like my colleague MeLisa has stated, we have a responsibility to our customers. I serve as the General Manager of Lincoln County Power District. We serve an area of about 10,000 square miles. We only have about 5,000 people in our entire county. Our load is very small compared to some of the utilities within Nevada, but we have also had our door knocked on by some of these large loads, particularly data centers. Some of the information in the packet that Lisa has prepared, you can see that it is a substantial load growth for us. But we have a long history in public power in Nevada of being able to do the right thing by our customers, by answering to our customers. And some of those responsibilities that we take very seriously is keeping our rates low and passing costs on to consumers that cause those costs, or a term in the utility called "cost causation." With these future loads or possibilities of them coming into our service area, we would continue to take these steps. We also use a facility study process, or engineering studies, to evaluate what kind of stress these large loads would put on our system. And those costs are associated to the project and passed directly on to the loads coming into them.

Some of the challenges that we have in the future is the uncertainty, obviously, of power supply. It is something that we are facing all over the country, especially with large loads. And here in southern Nevada, as we have already talked about with the condition of the Colorado River, which many of us receive hydropower from that, but we believe that we can solve and tackle these problems adequately as we have in the past if negotiations are done correctly and we continue with our framework and our dedication to protecting and insulating our native customers. Thank you.

Robby Hamlin, CEO, Valley Electric Association:

Good morning. We are headquartered in Pahrump. We have approximately 25,000 meters. I really cannot add to what has already been said as far as our priority on making sure that we are taking care of our members, making sure that any additional costs that come on are not borne by our members. And if we do have data centers and large loads coming online, that they cover their costs and we protect our existing members. Beyond that, I think earlier when someone said ditto is enough, so "ditto." Thank you.

Ms. Levine:

And then in Carson City we have Thad Ballard, CEO of Wells Rural Electric.

Thad Ballard, CEO, Wells Rural Electric Company:

Thank you, Committee members, for this opportunity. We have been in business for 68 years serving 6,200 accounts in the northeastern corner of Nevada. I think one of the important aspects of our presentation here today is that the publicly owned, or the consumer-owned, utilities in the State of Nevada pool our resources through the Nevada Rural Electric Association, and one of the biggest benefits we get out of that is shared best practices. And among those are cost causation—assigning the members, the consumers, who cause the cost to pay for those costs using substantial deposits to ensure that those costs are not passed on to existing members.

Extensive coordination with our local governments. Some of our utilities are a subset of local government and some of us are cooperatives. Our particular cooperative serves four incorporated cities and three counties, and so we have extensive relationships with those local governments who are also very concerned about the energy and water consumption issues that you are addressing here.

And just for a little bit of level setting, we have been serving—they are not on the part of some of the data centers that are coming—but we have been serving large loads for quite some time ourselves and have been very successful in not only segregating those rates so that the members who cause those costs pay for those costs, but then also sharing the benefits of those investments that the large members make. For instance, when they build new transmission assets or new substations, our existing members or new members benefit from that infrastructure investment and that often spurs additional economic development in our communities that benefit everyone who is there. I am happy to answer any questions, but thank you again so much for the opportunity to be here.

Ms. Levine:

Then we have Kevin Robison, also in Carson.

Kevin Robison, CEO, Mt. Wheeler Power:

Thank you, Chair Anderson, Chair Watts. Echoing much of the sentiment that has been shared by my colleagues. Mt. Wheeler Power is uniquely positioned in the fact that we have one load that serves 40 percent of our required demand on a monthly basis. So, we do have that experience in dealing with those types of large loads and protecting our members' assets as well as their financial stability, as we put forward rates that they can afford. The unique opportunity that we have in our member-owned utilities is the fact that we have to be responsive and nimble to those members, large or small, on a direct basis, month by month. And in the Nevada Rural Electric Association, I think you will see that our rates demonstrate that we are responsive to those members in those rate capacities. Thank you.

Chair Anderson:

Thank you so much, and just a reminder, you have got four slides and about two minutes. I am so sorry.

Ms. Levine:

I appreciate that Chair, and we are going to be brief on this. One of the things we really wanted to demonstrate with this slide is how not all data centers are the same. You can see from the megawatts. I mean, there are some that knock on the door that are maybe 100, 200 megawatts, and there are others that are 800 to, you know, 1,000, 1,600 megawatts. And when we are looking at the load capacity that my members currently have, it is significant, and it is significant in a time when the supply and demand challenges are very real, as you have already heard. One thing I do want to touch on—this was asked earlier and perhaps it was answered, but I did not hear it. One megawatt is equivalent to about 200 residential houses—so just to put this into perspective.

We have already heard quite a bit on this, and I know we are going to hear more of it, but the power demand forecast of data centers, one thing that this does demonstrate is it is constantly changing. Every single year, the forecast increases significantly, so it is really hard to tell right now what the forecast for energy demand really will be in the future.

I am going to skip the chart on the right, but on the left side, one of the things that we are asked pretty often and regularly is, what is the difference between serving a large load data center to, you know, historical industries in the state, such as mining and industrial manufacturing. As you can see, it is pretty significant. Data centers, in terms of demand forecasts, represent over half of future energy needs, and this is a national domestic.

I do want to touch on this—recognizing we are running out of time—but certainly, data centers are a local issue, but the challenges are on a global scale. We see that from supply chain issues, manufacturing, permitting backlogs—which are already the case currently—workforce shortages in rurals, which I am sure all of you are very well-versed on. The federal land issue, in the sense that when you think about the recruitment of property taxes and how that would go towards infrastructure such as roads, public safety, things of that nature, it is lacking when we think about Nevada. It is not hard to assume that these data centers may or may not be interested in federal land.

The grid stability in terms of excess and redundancy, because if there is excess energy, the likelihood is data centers are going to want to be interconnected for the reliability piece. We can imagine that would be included in some of their contracts depending on who their clientele is, and it is not so simple as just adding that to the grid, which we are happy to talk about in the Q&A [question and answer] portion.

Then the power supply. Currently, my members, they do take a significant portion of supply from historical hydropower. In northern Nevada we have the Columbia River from the Lower Snake River dams, and in southern Nevada, we, of course, have Hoover and Glen Canyon. Solar—my members are very much in the belief of all-of-the-above approach. You can drive through rural Nevada on any given day, and you will see solar. And then of course, natural gas. We are already seeing fuel costs, being, you know, very inflationary based on international affairs as well as some of our neighbors. And then also the fact that sometimes the supply, particularly with my members, often comes from generation and transmission utilities that are really already at the max when we think about supply. And when all of that is utilized and they have to go to market, this is where the high cost really kicks in that we see from, you know, whether you are in the territory of an NV Energy or one of my members. Let me just take a moment if any of my board members wanted to add to that. Okay.

Just to touch on this briefly. You have already heard from NCSL on this, but we were asked what policies we are looking at in other states. This is as of March 11, but you know, there has already been over 300 bills this year across 30 states that have been introduced. We are seeing a shift from incentive-focused policies to regulatory oversight, which certainly has come up today. Over nine states have already introduced some kind of state moratorium bills, and then we see special rate class legislation. I am not here to advocate for any of these, but these are certainly policies that we are watching. One thing I would note is they are untested, so time will tell in terms of what the outcomes are of these. One thing we do know is that contract negotiations can be extremely beneficial at the local level. They understand what the supply/demand challenges are. They understand what the public sentiment is in their local communities, and because of the business model that my members have, you know, if they are not in lockstep with their local communities, they very well could be fired the next day because there is that very fast accountability to the local community.

One thing I would strongly urge this Committee to consider is just empowering local communities to be the decision-makers. And with that, I apologize if I went over time. We are happy to answer any questions.

Chair Anderson:

Thank you so much. You did that really quickly in the last minute. You were able to get through three slides. First, I will ask the Committee if there are any questions. Chair Watts.

Chair Watts:

Thank you, Chair. First of all, I just want to thank you all for the presentation. I really appreciate it. I think some of the— I appreciate that slide that has a lot of those numbers because we hear about— We just got presentations from NV Energy about their northern Nevada service area seeing potentially 3X growth, or doubling what has been developed from the start of their service up to today, doing that two more times over, you know, pretty short time horizon. And then we are seeing in some cases, 70 times what is currently serving some of your service territories. I appreciate that you also brought up some of the timelines. Going back to what I was saying earlier, there are some questions about how real some of these projections are because we have physical limitations to how fast we can produce chips, to actually do the processing in these facilities, as well as some of the turbines, some of the transformers, and some of the other physical infrastructure. So, my question just is, do you see that having somewhat of a moderating influence on some of the things that you see coming forward is just the actual physical restraints of materials being available to meet some of these projected demands?

Ms. Levine:

Chair Watts, thank you for that question, and thank you for the invitation for us to be here today to present. Certainly, if I may open this up to my colleagues who are here with me as well. But just to highlight, and we can make sure you get this infographic, too. It is really helpful in terms of the inflationary costs already on supplies for the industry, which is something that is really difficult for perhaps folks in this room, including on our side and on your side, to impact. But even on turbines, there is a six-year backlog. I mentioned this in one of the slides. Siemens is now looking at doing domestic manufacturing, which is great, but that will not bring those turbines, in terms of shelf life, for another five years. And so now when we think about potentially this new industry coming in with significant economic ability to purchase, it is hard not to see upward pressure on prices with that being the case.

And a turbine today, on the low end, is already going to start at about \$15 million. And when you purchase these, it is my understanding that you place the order today, and when it comes available, that is when you pay the price, so it is very hard to really forecast what that actual cost will be until you get it.

We just had an event last week, actually, and I was sitting with some of the folks who sell the cables for high voltage. One of the things they were sharing with me is that some of the companies in that space are actually starting to focus primarily on prioritizing the sale of their products to this industry. And if that happens, you can imagine how utilities, particularly public power utilities, will have a harder time economically competing to purchase the materials they need.

To answer your question, it is difficult to really put a number on that or even on the timeline side, but certainly, it is something that my members are watching closely and our national affiliate is helping us to navigate as well.

One other challenge I would add to that is just in terms of grid infrastructure and maintaining resiliency and reliability. You can see where that is a real challenge, too, because the grid infrastructure is aging.

Chair Watts:

Thank you for that. I really appreciate that. I think those constraints also point to the importance, and you mentioned transmission as well, so figuring out how we can get a generation that is on site or close by because of some of the transmission constraints that we have and really just trying to maximize every piece of the grid that we already have, because it is going to take time and a lot of resources to make improvements to that infrastructure, I think, is really important. I do not have any other questions.

I just wanted to note, obviously, there is a difference in the governance for co-op and municipal utilities compared to our investor-owned utilities that are regulated by the Public Utilities Commission. It is encouraging to hear there is a lot of similarities in terms of how contracts are being approached by all of these entities. And I think one of the things that is really exciting that I would love to get some additional information on, is how you are also approaching not only navigating those challenges, but I think you also mentioned some of the potential benefits that can come from making investments in both your systems and your community's infrastructure as you are looking and navigating the process of figuring out if and how you locate some of these data centers within your service territory. I think that is something that resonates with me and probably a lot of people is figuring out, again, not only how you are approaching avoiding cost increases for your existing customers but also potential ways to ensure that there are benefits that are flowing to the communities as well. I would love to follow up with you about that. Thank you, Chair.

Chair Anderson:

Thank you. Senator Ellison.

Senator Ellison:

Wells Rural. I know that they are doing an expansion down into Wells, and I am hoping that that City's going to grow and the infrastructure that is going to take down there and maybe Wells Rural can answer some of these questions we are hearing out here. Does it look like we have got any and all of the infrastructure for that new facility in Wells?

Mr. Ballard:

I want to make sure we are talking about the same facilities. We recently connected an Amazon distribution center that is online, and they are doing job interviews right now. And we also connected a propane tank refurbishing company, and that is online and they have 6 employees and will expand to 28. And I know for most communities, that does not sound like a lot of jobs, but 100 jobs at Amazon and 28 jobs at Ultra is a lot of jobs in our community. We have long-term plans for improving our infrastructure in order to meet those growing loads, and we have been able to keep up with the incremental growth that we have always had, but that is a stark contrast to a 100-megawatt or 600-megawatt large load that might come in.

We do have a good track record of meeting those larger loads. Later this year, we will connect a 20-megawatt gold mine in the southernmost part of our territory. That has taken us nearly ten years to get through the permitting process to build 17 miles of transmission line to serve that facility. It cost about \$18 million. In contrast, in 1983, we built a 40-mile transmission line to serve Wendover. It cost \$1.8 million and took four months. So, lead times on materials are one thing; lead times on permitting are a whole other game.

Senator Ellison:

Well, I thank you. And the other thing we are going to try to do, Pete Goicochea and I spent a lot of time trying to get that road expanded in the passing lanes between Wells and the Idaho border, and we are hoping we can get another shot at that this coming session. So, thank you very much.

Chair Anderson:

Thank you. Assemblymember Karris, please.

Assemblymember Karris:

Thank you, Chair, and thank you for the presentation. I am kind of two parts, Chair, so if you can indulge me on two questions. The first is, as a coalition, do you guys see your challenges to be the same as the larger companies, or how would you differ?

Ms. Levine:

I think on the supply chain side, that is going to be a global impact for anyone in the energy space, but certainly, if you are a smaller utility, fortunately, there is— In the co-op world, the model is very much shared best practices as Thad Ballard mentioned earlier. And my members work very close, hand in hand, and there is a lot of ways that they can pull together to negotiate and have a bigger footprint with some of these suppliers. On the permitting front, that is something that certainly impacts all of us. I will say one of the concerns that we are seeing, we are talking about this nationally, too, is with FERC [Federal Energy Regulatory Commission]. There is, certainly under Trump's second administration, more interest in speeding the permitting process for the AI boom and race that we are seeing. And one of the concerns we see is that perhaps that could also then create a backlog for power utilities, you know, particularly if this industry is interested in self-generating, which again, it is really hard to see that they would not be somewhat interconnected. But I do want to open that up to my members and see if they wanted to answer that.

Mr. Robison:

One of the unique things that we have amongst Nevada rural electric utilities is our power suppliers are much different. We do take hydropower, many of us, from different locations but the resources of which we get, the remaining of our power comes from different resources. Some of us are G&Ts [generation and transmission], which Mt. Wheeler Power is, and we are looking at some future generation. But it is very, very difficult to consider resources that cannot handle the capacity loads. Clean energy is a great opportunity for all of us, but we still need capacity to serve in some regions of the state because of, whether it be weather or whether it be low demand, capacity is a significant piece in that consideration. So, generation is very different for all of us.

Mr. Bradfield:

Assemblymember Karris. I will take a small comment on that as well. As you have seen on the slide deck, there is a potential of 70 times our load growth in our area alone with some data centers. That poses a very significant challenge to a utility like us, as you can imagine, that, I think, would be very different to a large utility that maybe has some of the infrastructure in place already. For us to take on this type of load would likely mean pretty much an entire new transmission system, at least to the areas that would serve these loads. And along with that would be, as Kevin just mentioned, capacity rights across other people's transmission lines to get generation into those areas. So along with that is staffing issues. As I mentioned before, we have a very small population. I am very proud of our employees that we have, and I would put them up against anybody, but the talent pool is low, if I could say that, in our areas, just because of the lack of population, and to find qualified workers to help facilitate some of these would be a challenge as well.

Yes, along with that is our hydropower allotment for that. I spoke briefly about this when I spoke earlier that we know that generation from the Colorado River and especially Hoover Dam is potentially going to go much lower in the future. Our current allotment of hydropower covers approximately 70 percent of our load. If we received our full allotment, we would be 100 percent hydropower from Hoover Dam. With some new numbers that have come out recently with the low lake levels, there is a very real potential that we will drop 50 percent by next year to where only 20 percent of our supply will be from hydropower. With that, as you can imagine, is a whole new set of challenges for all of the utilities, not just us, but we have to go out and acquire additional resources to serve our customers, which already is upward pressure on the rates because as we know, hydropower is one of the cheapest and most flexible generation sources that is out there. And so, to go buy other resources will likely be more expensive to our customers already.

Chair Anderson:

And then, Assemblymember, did you have a secondary question as well?

Assemblymember Karris:

Yes, thank you, Chair. I did want to know from all of you, what guardrails are you looking to see from this body?

Ms. Levine:

Thank you very much for that question. Certainly on the community benefits side, as Chair Watts alluded to earlier, it is very interesting to see how that will formulate next session amongst all of you. That is something that my members on the local level are very

interested in, navigating both through contracts but also watching to see the conversations that you have. It has certainly been a positive experience watching some of the big tech companies nationally talk about growth—how to pay for growth. That is certainly a new message that we are hearing from the industry. But what that means is something that, you know, we are really interested in learning as well. Because as you can see, some of these expenses, potentially in the future, are not specific to just the growth itself, in terms of isolation of that one data center.

Otherwise, I really would stress that when it comes to these decisions, we really do think a local approach makes sense, and we think that because when we are looking at this from all of the issues that you have already heard in terms of land, all the natural resources that go into this, water, but certainly also, of course, energy supply, my members are really experts. They are. They know their service territories better than anyone. They have great relationships with the local, you know, county, or city, that they are working in. And so, navigating that at the local level we see has already been really positive when it comes to working with the mining association and some of these other industries, also with gaming in the rurals. And so, I really would stress that.

Assemblymember Karris:

Thank you. Thank you, Chair.

Chair Anderson:

Thank you, and thank you so much for this presentation. I have a feeling many of you will be getting some phone calls for the next few weeks for a little bit more follow-up, so thank you so much.

We will be taking a lunch break after the next presentation. I know I said 12:30, but I know, Public Utilities. Sorry guys, but that does not mean you need to go through it really quickly.

AGENDA ITEM VII—GRID INFRASTRUCTURE AND RATES—REGULATORY AUTHORITY AND APPROVAL

Chair Anderson:

Next up we will hear from the Public Utilities Commission of Nevada, and I believe we have Mr. Garrett Weir, the PUCN's General Counsel, joining us here in Carson City. Thank you for being here. Please begin whenever you are ready.

Garrett Weir, General Counsel, PUCN:

All right. Good afternoon, Chair Anderson and Chair Watts, members of the Committee. Thank you for the opportunity to speak today. I would just like to begin by echoing some comments that you have heard throughout the presentations today, and that goes to one of the large drivers for why there is this interest in locating in Nevada for these data centers or large users of electricity, and that is because, frankly, we have low rates. That is not something that people hear very often, and I know that we hear from households who are struggling regularly about the economic or financial burden of electricity rates, utility rates in general, but we are very proud at the Public Utilities Commission of the work we have done to keep those rates relatively low. And just specifically, to provide some figures from independent reports that have been issued recently, we are talking about either the first or second lowest rates in the country. Generally, it is Nevada or Idaho in most of those reports

that are being published. And then with regard to recent rate changes, the inflation adjusted rates for Nevada residential customers have actually declined by between 8 to 12 percent depending on the study. And that is over the past five years. You know, that is quite a contrast to the vast majority of states where rates have gone up over that period of time significantly.

So, with that background, I guess I will just jump into the Public Utilities Commission's role when it comes to these large load customers. And it primarily, I guess, consists of regulating the access, their access to utility service and the terms and conditions of that service including pricing. A little bit of background regarding the statutory charge of the Commission is that the Commission must balance the interests of the ratepayers of the utilities with the utilities' interests by allowing the utilities to recover all of their prudently incurred costs but at "just and reasonable" rates. And in setting those just and reasonable rates, the Commission looks not just at whether costs were prudently incurred, but also at how to allocate those costs among different types of customers. And generally, those rates are designed to recover the costs of service from the customers who caused those costs. So that will be a theme as I am going through some of the issues the Commission is confronting is that the process of the Commission will be prioritizing what you have heard from other speakers, which is insulating existing customers, residential customers, your constituents from the risks and costs associated with serving these large customers. We have heard, you know, reference to stranded assets. Those are the kinds of risks is that if this planned for demand does not materialize, we do not want other customers left holding the bag.

First, I will speak a little bit to some of the recent proceedings that the Commission has had to address the issue of data centers and large load customers. There is a pending investigation right now that is Docket Number 20-08014 at the Commission, and it is an investigation regarding planning to ensure that electric utilities have adequate resources to meet the demands of customers. So, recently the Commission examined the current processes that NV Energy is following and coordinating with customers who are requesting service. There was some discussion earlier about the form of energy service agreement that NV Energy has been circulating. The Commission requested that information along with information about exactly what the request for service looks like. We have some idea of what is coming forward, in advance of what I will talk about next, which is the integrated resource planning process and that forthcoming filing. We have gotten the ball rolling with some discussion in that investigatory proceeding where numerous parties have participated. Stakeholders have shared some concerns with existing processes, identified some of those challenges. And over this period of time, too, both formally and informally, the Commission has maintained an ongoing dialogue with a lot of these large customers you have heard from today and others and the utilities themselves. And we are very aware, regulators across the country are very aware of these unique, unprecedented challenges, and we are frankly excited to embrace that challenge of coming up with some solutions, some of which may be unique and innovative creative solutions, something that Nevada could be a leader on.

With regard to the planning process. The formal planning process that the Commission has for electric utilities is every three years. There is what is called an "integrated resource planning process," or at least once every three years. And that is where we look at the demand for electric service that is projected for the next 20 years and figure out how we are going to meet that demand. When it comes to these large load customers, we are going to address a lot of these issues in that upcoming Integrated Resource Plan that is filed by

NV Energy. And while doing that, the Commission is going to be prioritizing protecting other customers from increased cost or risks, while also not stifling growth or investment, so long as we can come up with terms that protect other customers and ensure that that new demand pays for the cost of serving it.

What we anticipate that will look like in the integrated resource planning process is first the driver or the starting point of the resource planning process is the load forecast. That is where we come up with a projection of what the demands are going to be in the future. And historically, that is something where we mostly focus on issues like weather normalization and what is driving population growth, those sorts of things. But with these new types of demand being so large and coming forward at such a fast pace, it presents new challenges. What we expect to see in that phase, I guess, of the resource planning proceeding is a discussion of how much load to include. We expect to see customers who are going to say that their load should be included. NV Energy may have mitigated it to some extent. They do not think it should be mitigated, but we will have a discussion about a lot of those factors that we heard from NV Energy. How real are these customers? Should we plan for them? How much are they speculating versus committed to being here? And in figuring out whether to plan for that load, a necessary part of the discussion is going to be terms and conditions that should be applied to that increased demand if we are going to plan for it. And again, you have heard from NV Energy and others about some of those concepts like securitization or, you know, well, a lot of different mechanisms that exist to protect other customers. And there are a lot of options out there, and that is the sort of thing that the Commission expects to be evaluating. And again, there could be some creative approaches depending on different customers. There may be numerous options available, because again, a lot of these customers, as you have heard from them, are ready, willing, and able to pay for their fair share. And they have unique access to capital; that is not the case for most types of customers. So, again, the Commission welcomes the opportunity to address these challenges by comprehensively examining how best to protect customers while not imposing unreasonable impediments on economic growth within the state.

All right, so I guess I will just close by going back to the issue of rate making and the fact that whichever approach emerges from the Commission's processes, it will be designed to insulate other customers from the costs associated with serving these large load customers. And it is also important to note that before rates for residential customers can be adjusted, before there could be a rate increase of the type that people are concerned about, there would have to be lengthy proceedings before the Commission to authorize those adjustments. And all those costs and the allocation of costs will be scrutinized by numerous stakeholders who intervene in those proceedings. And they are tasked with representing lots of different interests, but we have entities such as the Commission has an independent regulatory operations staff that is pursuing the public interest, is going to make sure that there are not inappropriately, you know, inappropriate shifts of costs onto other customers. And then we have the Bureau of Consumer Protection in the state who states that . . .

Chair Anderson:

It is time if you want to start wrapping up.

Mr. Weir:

All right. The Bureau of Consumer Protection represents residential ratepayers' interests, or they say that they do, so those will be, those customers will be, those interests should be represented in our processes. With that, I am happy to answer any questions.

Chair Anderson:

Before I open it up to the Committee, I do want to ask a few questions that I have when it comes to the Commission. How exactly is the public able to be engaged with the commissioners? Do they have to be in person or are they able to do as we did this morning, phone calls? Are they able to do emails? How exactly can members of the public be engaged with the Commission?

Mr. Weir:

Thank you. Great question, and there are different ways for the public to engage in different types of proceedings. For public meetings, under the Open Meeting Law, when the Commission takes action on an item, when they vote, those are meetings that are held pursuant to Nevada's Open Meeting Law, so there is a period for public comment before and after. Now, the public comment that is live, generally—unless there is an accommodation request made in advance—those are generally in person at one of the offices either in Las Vegas or Carson City. But there is the opportunity for submitting comments in advance electronically or physical copies at the front desks of the offices.

For actually participating in proceedings for something that is not a contested case, like a rulemaking or an investigation, any member of the public can show up and make comments. Again, there are opportunities for written comments to be provided, or in person. And workshops, those sorts of things, everyone is welcome to participate even just as an individual citizen.

When it does come to contested proceedings where you have due process, there is evidence, we take testimony and sworn testimony under oath, it is an evidentiary record that generally a customer or an intervener there has to demonstrate a direct and substantial interest that is not duplicative of another party. And so, given the representation of residential customers' interests by the Bureau of Consumer Protection, it is historically individual ratepayers, unless there is some distinguishing characteristic of that customer, do not participate where they are cross-examining witnesses in that sort of way. But, customers still would, the public would have the opportunity to file comments even in contested proceedings. It is just not evidence that can be relied upon by the Commission. Hopefully, that answered your question.

Chair Anderson:

Very thoroughly. Thank you. I just want to make sure I have got it clear. The public comment can only be done in person because I have had numerous individuals contact me about this and how if they are having to be on a bus, how difficult it is. So, just want to make sure, though, that arrangements can be made before a meeting to possibly have phone, call-in public comment or is it only in person for those large PUC meetings, not for specific events, or I guess not events, but not for specific companies, but during their utility meetings, people are able to possibly arrange for public comment to be done through the phones?

Mr. Weir:

There is not a legal requirement for that. In the past, there has been accommodation made certainly under the Americans with Disabilities Act, there can be accommodations provided, but the opportunity for people to file advanced written comments, sometimes the telephonic participation can become unwieldy. But yeah, that is something that I think the Commission can entertain, and if there is direction from this body, I think that that is something that

would be seriously considered. Also, I did neglect earlier to mention that for those contested proceedings, the Commission holds consumer sessions where it hears sometimes hours of public input that is intended to feed into the testimony that those public interest participants provide to the Commission. So, there is a lot of opportunity for engagement with the public in our processes.

Chair Anderson:

Thank you so much. The second question I have before I ask other members of the Committee, when was the last time that the planning process was looked at, since it seems to happen every three years? And if you could possibly provide to this Committee that plan, however many years ago it was.

Mr. Weir:

I can get back to you with the exact dates. It is not always a full three years; the utility may bring something earlier than that. As far as the last time the process itself was examined, I believe the legislative session before last there were some changes made to address the frequency or I guess what can be included in an amendment, because we are getting serial amendments to the plans that were being filed. And then, that law did allow for a more frequent filing. Well, it allowed for more frequent rate cases, as well, but I can get specifics for you about the exact docket and provide that.

Chair Anderson:

Yes, please, and if you can please send that to the Committee Secretary. Chair Watts.

Chair Watts:

Thank you, Chair. My ears are ringing because we are talking about a piece of legislation I worked on during the 2023 Session, so I think we can all collaborate on getting the information about that bill, which was, I think, the last time that we took a substantial look at the resource planning process.

Moving to my question, I appreciate everything that has been put forward here by the PUC. I will say, obviously, these are very complex issues, and I do have, you know, I heard the commitment to make sure that the decisions that are rendered by the PUC are protecting customers. I think, as was noted, I am hearing a lot of concern about the affordability of electricity rates from constituents, and it does not do a lot to make people feel better knowing that they have low electricity rates when their monthly summer bills in Las Vegas are \$300, \$400, \$500, \$600. And so, those are things that I hear when I am talking to my constituents, but we absolutely want to make sure that they are protected from seeing potential rate increases as a result of this. I think even the most recent rate case and the decisions that were rendered there have caused a lot of concern about added costs going on to customers' bills as a result of the potential demand charge.

The question that I have is, again, there is a lot of different elements to this. I mean, already mentioned were contracts, resource plans, rate cases. There are also investigations, regulatory rulemakings done by the Commission, so there is a lot of different kind of pieces, also updates to utility service rules. It seems like there is a lot of different places where these issues are being worked on, but the overarching guidance for that comes from statute. And so, is there anything other than the general duty of the Commission to balance

these issues when it makes these decisions. Is there anything, to your knowledge, that provides some degree of certainty to utility customers that the cost associated with new data center growth will not be passed on to other customers including our residential customers?

Mr. Weir:

I guess I will just start with the question of all of the different forums where these discussions are occurring. To make it simple for folks, I think all of the discussions right now are leading up to the one place where there will be comprehensive attention to, or attention to comprehensively addressing all these issues in the Integrated Resource Plan filing. So, the IRP, that is the place where these issues are going to be addressed, and action will be taken by the Commission. As far as assurances that customers can have, I mean the Commission does have numerous statutory obligations to provide for just and reasonable rates to protect other customers. I know that I can speak for the Commissioners right now who we have on the Commission, their number one priority in addressing these issues is to make sure that existing customers are insulated from these costs. So, any solution that emerges is going to do that, and that is part of the question of whether a rate is just and reasonable. The Commission has a lot of discretion in setting rates, but that is the one standard that can result in a decision being overturned by a court. Those are the sorts of things that a court would look at is, you know, is it fair, is it just and reasonable for costs that are associated with serving one type of customer being shifted on to others. I do think that there is a protection there, though it is general in nature. The Commission reads that as a pretty clear obligation to protect customers.

Chair Watts:

All right. Thank you for that, Mr. Weir.

Chair Anderson:

Great. Any further questions? Seeing none, thank you so much for your presentation, and I am sure we will be discussing items in the future.

At this time, we will be taking a 30-minute lunch break, well, 32-minute lunch break. For those of you that are here in Carson, we do have the cafe on the second floor. For those of you in Clark County, I believe we also have a little cafe in Las Vegas, but hopefully we will see you at 1:30. Thank you so much.

Chair Anderson:

All right. We are going to get started back in. Thank you for that incredibly quick lunch, and we will actually have to go a little bit out of order. We are going to jump to number X A, the Data Center Industry Update.

AGENDA ITEM VIII—INTEGRATED RESOURCE PLANNING AND AUTOMATED DEMAND RESPONSE STRATEGIES FOR MANAGING DATA CENTER ENERGY DEMANDS

Chair Anderson:

We will next hear from Mr. Kenneth Cottrell, a doctoral candidate at UNLV [University of Nevada, Las Vegas] School of Public Policy and Leadership. I believe you are presenting from Las Vegas. Welcome and come on up, introduce yourself, and you may begin when you are ready.

Kenneth A. Cottrell, M.A., CEO, Green Chain Incentives, and Doctoral Candidate 2026, School of Public Policy and Leadership, UNLV:

Good afternoon, Assemblymember Anderson, Watts, and members of the Committee. My research focuses on automated demand response policy for data centers. Today, I want to address a problem that sits at the intersection of Nevada's economic ambitions and its grid reliability obligations. I want to leave this Committee with three concrete actions that you can take care of right now. ([Agenda Item VIII](#))

I will walk you through six topics in the next 12 minutes. First, the scale of load growth challenges. Second, why existing demand side programs cannot solve it. Third, what automated demand response actually does. Fourth, what NV Energy's own Integrated Resource Plan says about automated demand response should deliver. Fifth, the evidentiary gaps that puts those targets at risk. And six, three specific recommendations for the Committee that are tied to a deadline that is externally set and nonnegotiable.

Let me start with the numbers on this slide. Because they are not just projections from an advocacy group, they come directly from NV Energy's 2024 Joint Integrated Resource Plan filed with the Public Utilities Commission of Nevada. Twelve data center interconnection projects are expected to bring 5,900 megawatts of new load to Nevada's grid by 2033. That is not a rounding error. That is roughly two-thirds of the grid's current peak demand and added in under a decade. The consequence of inaction is projected capacity as 4,400 megawatts by 2034. But the more immediate number is the one that creates the legal exposure is the Western Resource Adequacy Program, which is 22,100 megawatts. That is capacity deficiency Nevada is projected to carry in the summer of 2028, which is the first Western Resource adequately programmed binding season. The chart behind me shows the system peak demand rising from roughly 8,800 megawatts today towards the 13,500 by 2033. Nevada has never faced a demand trajectory like this in its planning history. Data centers are not the only cause, but they are overwhelming one of the dominant drivers.

Some members are thinking, can we just build more generation? More solar, more storage, more transmission? Those investments are necessary, but do not solve a specific problem that the slide illustrates. On May 2, 2024, Nevada's net load approached at zero during the midday of solar generation peak. At the same time, overall system demand remains high. When solar output collapsed in the late afternoon, the grid had to ramp up thousands of megawatts of dispatchable capacity in order [inaudible] in the amount of hours. That is the duck curve. And data centers make it dramatically worse because the load is constant around the clock, regardless of what the sun is doing. What the grid needs in those evening stress periods is not more annual kilowatt savings. It needs a load that can be reduced on

command within minutes and verified results. That is the definition of “dispatchable demand response.” No existing Nevada demand site management program delivers this capacity at the scale a data center requires. Energy efficiency programs reduce your energy bill. They cannot prevent a blackout at 7 p.m. on a July evening.

I want to spend a moment on what the automated demand response is, and is not because there are misconceptions in this space that can derail productive policy conversations. Automated demand response is a signal through a system called a distributed energy resource and management system to a data center's energy management system. The data center responds within minutes by shedding noncritical loads through precooling, workload migration, and drawing on uninterruptible power supply buffers. Response is automated through a verified against a contractual megawatt commitment.

Automated demand response. It is not a power outage. Operators retain control through preagreed protocols. It is compatible with data centers’ legal agreements, the platform used to deliver it. Including the satellite E360 system, which is deployed, specifically engineered for high availability environments. It is not unproven technology. PJM interconnection and the CAISO, California Independent System Operator, two of the most sophisticated grid operators in North America, use similar programs for data centers for years.

NV Energy's own 2024 Joint Integrated Resource Plan sets specific measurable targets for automated demand response. I want to draw your attention to two numbers in particular. The grid value demand side manage portfolio calls for 175 megawatts of new dispatchable demand response capacity by the end of 2027. That single program target, if achieved and verified, will reduce Nevada's projected Western Resource Adequacy Program capacity deficit from 2,100 megawatts to approximately 540 megawatts; still significant but meaningful and more manageable. The plan also establishes an automated demand response net total resource cost ratio of a target of 4.0 or higher, which will allocate these investments within the existing \$248 million commercial demand response budget. The regulatory framework for this program already exists. The funding mechanisms already exist. The question before the Committee is whether the measurement and verification infrastructure exists to confirm that the program is actually delivering what it promises.

Here is the problem. Nevada's current performance measurement system is designed for energy-efficient programs. They focus on annual kilowatt-hour savings, enrollment count, portfolio-level cost ratios. That framework approach for those programs is structurally inadequate for real-time dispatchable demand response.

On the left side of the slide, you will see what currently exists in Nevada's demand site management reporting. Focuses on annual kilowatt savings, program enrollment counts, aggregate net total resource cost ratios, model load estimates. On the right side is what the Western Resource Adequacy Program complies actually requires, which is: megawatts of automated curtailment capacity enrolled; dispatch events executed with verified megawatts delivered per event; real-time distributing energy resource management system; telemetry tied to a duck curve management; and a program-specific net total resource cost ratio. Not a portfolio average, far from a broader commercial demand response program. Without event-level metering built into the program from day one, there is no mechanism to link dispatch event on a July evening without improvement of Nevada's Western Resource Adequacy Program for showing. We will be able to prove that this program worked and even if it did, it will create both a reliability risk and a ratepayer risk because the incentive payments will flow without verified performance.

This slide identifies five specific evidence reasons why we must be built into the automated demand response program from the start. I will move through them quickly. First, dispatch-event level metering, capturing the time, duration, and megawatts delivered in every individual dispatch signal. Second, a validated baseline methodology specific to Nevada's 24/7 high utilization data center loads. This must be verified by evaluation, measurement, and verification evaluators before any Western Resource Adequacy Program attribution claim is made. Third, the distributed energy resource management systems telemetry demonstrating a dispatch reliability rate at least 90 percent. Fourth, an automated demand response specific net total resource cost is calculated from the actual pilot costs, not inherent from broader commercial demand response portfolio. And fifth, documented that the event timings aligned with the Western Electricity Coordinating Council binding season stress periods formatted for the Western Resource Adequacy Program capacity credit attribution. Each link in this chain is necessary. A gap at any point invalidates the claim that follows, including Nevada's Western Resource Adequacy Program or showing before the Western Electricity Coordinating Council.

I am now on my recommendations, and I want to be precise what I am asking for. Recommendation one, help NV Energy redesign a commercial demand response program that is dedicated to data center automated demand response track with mandatory dispatch protocols and event-level monitoring. The first step is a letter of intent with one of the large data centers operated for six months, executed within the nine days of the utility action plan approval. I have preliminary approval from the University of Nevada, Las Vegas, to include the University's GPU [graphics processing unit] cluster, also known as the RebelX, the RebelX supercomputing lab, as a monitor participant. That gives the Committee a direct connection to a public accountable public site.

Second, I require that dispatch-event level reporting be established as explicit condition of pilot approval, not left to the utility's discretion. The current framework allows NV Energy to define its own measurement approach. However, the Western Resource Adequacy Program requires specific externally validated evidentiary standard, and that standard must be set as a condition. That is a suggestion.

Third, request that the next Integrated Resource Plan include a preauthorization allowing NV Energy to expand automated demand response without separately regulatory proceeding when a quarterly interconnect request exceeds 500 megawatts. This converts a successful pilot into a binding, scalable mechanism and eliminates the regulatory lag that would otherwise consume the time that Nevada does not have.

The timeline of the slide is not a policy preference. It is a product of three externally set constraints. First, the Western Resource Adequacy Program binding season calendar, the utility action plan approval cycle, and the Integrated Resource Plan submission schedule. Starting now, a Committee directive and an NV letter . . .

Chair Anderson:

Sir, I am going to ask you to come pretty close to wrapping up, please, if possible.

Mr. Cottrell:

Okay. First, let us talk about equity. The framework I first described is a cross-subsidy indicator drawn within Nevada's Senate Bill 488 obligation that monitors the other data center rating centers are shifting costs to residents or rate payers, and the indicators flags cost shifting and utility account triggers.

Secondly, the economic development. Grid reliability is increasing data center site selection criteria. A verified ADR [automated demand response] program signals to a data center that are operated in Nevada can absorb the load without destabilizing the grid. That protects the ratepayer and ensures that the load growth also contributes to rather than undermining system.

And the last one, and I will close out with this. I will say it again. This is what I am asking, is a six-month pilot for one data center, which is the one to use the UNLV and require dispatch level event monitor to establish the explicit conditions of pilot approval, and request that the Integrated Resource Plan include a preauthorization language, which allows NV Energy to expand automated demand response when quarterly interconnection request is 500 milligrams [*sic*]. I now conclude my presentation.

Chair Anderson:

You did really well with that. Thank you so much. I know there was a large amount of information to try to get through in a very short amount of time. Thank you very much for putting that in. And then I believe, and I really do appreciate all of the information in here. You have got a lot of great ideas in there. I also know that Chair Watts would like to make a comment as well, if possible. Chair Watts.

Chair Watts:

Yes. Thank you, Chair. Thank you very much for the presentation. I appreciate it that there are some specific, concrete action items. I think it is always a great opportunity to lift up ideas coming out of UNLV and our higher education institutions, and you bringing forward a potential collaboration, again, between that entity, between the data center industry, and the utility.

I do not really have a question for you right now. It seems like there are ways this could be integrated into some of the utility proceedings that are going on. I think my ask, since folks are not at the table—I see, it looks like folks at least down here in Las Vegas with NV Energy left—but I just hope that folks with the data center industry, the Public Utilities Commission, if they are also present or listening, will connect with you to talk through some of these ideas and provide feedback and see what pathways might work for everybody to bring a pilot project like this into fruition. So, thank you very much, Mr. Cottrell, for being part of the process and bringing this forward to the policymakers as well as other stakeholders.

Mr. Cottrell:

Thank you, Chairman Watts.

Chair Anderson:

Thank you. You are not done yet. I think we might have another question for you, sir. Sorry. Do not be walking away so quickly. My question for you, actually, when you make the recommendation of the, number two in particular, the mandate dispatch event-level reporting, has that been done in any other state or would this be a completely brand-new pilot nationwide?

Mr. Cottrell:

No. I work with, I have a partnership with a company called Sanalife Energy. They are doing this in Texas, and they are doing it in Maryland as well, too. They are the actual company that monitors it for these systems as well as another company called Loads. They are another data center—energy management system that tracks this data.

Chair Anderson:

Thank you so much. I again want to reiterate what Chair Watts was saying. I really appreciate the recommendations. Are any of the other two also in that same boat that it is being utilized in other states or is it only that one that is?

Mr. Cottrell:

Right now, within the western region, we have new standards that are going to be met. Our current ADR program does not account for those particular KPIs [key performance indicators], and that is what I am asking the state to do is like, where NV energy is already collecting data but not collecting the data that is relevant to the western region, to the WRAP [Western Region Adequacy Program] program, and that is the issue. Since WRAP is the Western Electric program, we need to get them on board. Nevada needs to follow what WRAP is setting the standards cause that is going to be onboarding in 2028. And currently, we are not doing that, and it is not in the current Integrated Resource Plan either.

Chair Anderson:

Thank you so much. Now you can leave the table unless you really want to stay for the rest of them. Thank you so much for your presentation.

AGENDA ITEM IX—WATER RESOURCE PLANNING FO DATA CENTERS, OBTAINING WATER RIGHTS, AND COOLING SYSTEMS POLICIES

Chair Anderson:

We are going to move on now to Number IX, water resource planning for data centers, obtaining water rights, and cooling system policies. We will be hearing from some of our water authorities. For our first presentation we have Mr. John Entsminger from the Southern Nevada Water Authority. And I know your schedule is incredibly busy right now with the Colorado River negotiations and greatly appreciate you coming to speak with us today. Please introduce yourself and begin when you are ready.

A. PRESENTATION BY SOUTHERN NEVADA WATER AUTHORITY

John J. Entsminger, General Manager, Southern Nevada Water Authority (SNWA):

Thank you, Chair Anderson, Chair Watts. Great to be here. Thank you very much for the invitation. I am not busy at all. There is hardly anything going on in the water world, so it is good to be able to spend some time with you guys.

Go ahead to the first slide. ([Agenda Item IX A](#)) I am going to move through this pretty quick. I know you guys have had a long day, and I want to leave time for questions. This is just an overview of our system. We have three major intakes, two major treatment plants, about 600 miles of 12- to 14-foot diameter pipes, and that is where you get your water to take your showers every day in southern Nevada. The one thing I would point out is the—I

believe it is the Data Center Coalition, or something—said that the average, unaccounted for water or water leakage in a water utility was 18 percent. SNWA loses less than 1 percent of our water every single year. So, if you want to blend us in with 1890s, you know, lead pipes in New York and Boston, that is fine, but we are much more efficient than that. Go ahead, Chauncey.

Okay, I am going to go through the bad news quickly. This slide shows the tale of the tape of the twenty-first century of Colorado River water flows. The blue is good; the yellow is bad. There is a lot more yellow than blue. This year, 2026, could absolutely rival 2002. There is very, very little snow, and the reservoirs are going to decline, precipitously, but until next fall when hopefully we will get some snowpack.

But this further illustrates that. I think the biggest takeaway here is Lake Mead will be in our backyard, and it will be in the news. But Lake Powell, at elevation 3,490; it loses the ability to produce hydroelectric power, and that is bad news for the western grid. It is bad news for power users all over. They will likely—they being the federal government—will likely be instituting plans to move water from upstream—Flaming Gorge, Navajo, Blue Mesa. But you got two to three years of reserves, and if it does not snow, we are really going to be in a pickle.

No news to anybody who has been outside in the last week that Las Vegas is getting hotter. I think the *Review-Journal* has a story today that we have hit our seventh straight day of record heat. And we get cool years, you know, 2011, 2023 were not too bad, but the trend line is not deniable. And we show that it is not just the demand side where there is no snow, there is no water, it is also people use more water when it gets hotter. We think the average person living in southern Nevada will use nine gallons per person per day more by 2035 than they do today in order to offset the effects of the heat.

The good news is SNWA does a 50-year resource plan every single year, and our resource plan shows that if we hit our conservation goals and population growth is what UNLV Center for Business and Economic Research says it will be, on the far left, we are in good shape. If population grows faster than what CBER [Center for Business and Economic Research] is projecting, we are still in good shape. We do not have to tap into our reserves until the late 2050s. The only really concerning scenario is if we do not hit our conservation goals, of which one of them is a ban on evaporative cooling. So, I will get into that.

Just really quick. Nevada's legal allocation. Our forefathers in the 1920s were incredibly visionary in making sure that we had 1.8 percent of the legal entitlement to the Colorado River. Under the current federal guidelines, we have 279,000 acre-feet, but our community has done such a good job with conservation, that last year, we used 198,000 acre-feet. But we have a federal NEPA [National Environmental Policy Act] document on the street today that will lead to a recorded decision by August that shows the federal government thinks they can cut us to 140,000 acre-feet. I do not know exactly what that would mean in terms of what we would have to do to curtail uses, but what it does mean is that each new use has to be as water efficient as absolutely possible.

There are only three ways to do that because we do have a strategic advantage. We sit on a giant lake, and that means every toilet that is flushed, every shower that is taken, we get that water back. We clean it, we put it in the lake, we bring it back. The only way we deplete water from the Colorado River is through outdoor irrigation, septic systems, and evaporative cooling. And that is another point to be made here, because earlier I heard the

talk about the possibility of using recycled or reclaimed water. That does not make any difference. Whether it is clean potable drinking water or whether it is water from a sewage plant, it is the same exact impact on our water resource portfolio if it is allowed to be used for evaporative cooling. Go to the next one.

We took the step at the local level of prohibiting evaporative cooling in 2021. I mean, well SNWA made the recommendation, and then it took a year-ish to get North Las Vegas, Clark County, City of Las Vegas, Henderson to all adopt that into their city codes. So, this is existing law right now. And we have seen data centers come in, build major infrastructure, and comply with the code as it is today. I am obviously only speaking for Clark County. I have no idea about rural Nevada or northern Nevada, but in Clark County, we have shown that you can build big, new data centers and not have an increase in your water footprint.

I will just briefly skip, traditional data centers. If you go out—I will not name names—but a legacy data center uses about as much water as half a golf course. You do not see it, but your smartphone is a water hog if you do it the old way. But the way we are doing it now, you can do it with a zero-water footprint. Go ahead, go to the next one.

And that is proven with an up and running data center. Novva had two new data centers in Utah, built a \$400 million data center in North Las Vegas with all mechanical cooling and a zero-water footprint. We have a permit application in our queue right now at the water district from Switch, which would build a new data center with 20,000 tons of cooling with zero-water footprint. Just for comparisons sake, the Red Rock Station probably has 16,000 tons of cooling. This is a big data center with a zero-water footprint. So, with all the plans we are seeing in Apex, in West Henderson, on the South I-15 Corridor, we are seeing a lot of plans for data centers, and that is fine, but they can be built without consuming any more water.

I am going to skip my last two slides and go to questions if you have any.

Chair Anderson:

All right. I think I might go a little bit different this time and maybe go to Chair Watts to see if he has any questions.

Chair Watts:

Thank you. Yes, we are really mixing it up. Thank you. Thank you for that presentation. I appreciate the work that you are doing and also some of the realities that we are facing, not only in this community but across the Colorado River. Again, I have been trying to— I think you did a really good job at making this quite clear, but at least in southern Nevada, standards have been put in place for the cooling systems for data centers and for other facilities as well that essentially have eliminated the loss of water. Because southern Nevada has recycling for its indoor use, anything that they are using that is not related to their cooling is being recycled, and that is why you say that there is a zero-water footprint here. I guess I just want to— As we are hearing about concerns that people have about the high water usage for cooling data centers, it sounds like going forward here, that issue is not really on the table because of what you talked about in terms of the policies that have been adopted, and that we are continuing to see some data centers be developed here that are meeting those new highly water-efficient standards. Is that a good understanding of things?

Mr. Entsminger:

Absolutely. I am unaware of any business that has not located here since the beginning of 2022, because they could not build evaporative cooling. Maybe that happens, but I am not aware of it. The Oakland A's new baseball stadium is 100 percent mechanically cooled with a zero-water footprint. So, these things can be done. Obviously, there is, you know, and we can have a longer conversation if you want to about the percent of increase in power costs, but I would leave the Committee with at least one point. You can build more power generation; you cannot build more water supply.

Chair Watts:

Thank you. I appreciate that, and all I will say is, again, as I asked some other presenters about what principles they may bring forward that can help ensure that we have these protections across the state. It seems to me that what southern Nevada is doing could be a potential model for policy for the entire state to consider to ensure that at least the water impacts associated with the development of data centers are mitigated. It is not really a question, I guess, it is more of a comment, but thank you again for the presentation and thank you, Chair.

Chair Anderson:

Thank you, and thank you for highlighting the southern Nevada water and their ability to work in this fashion. Assemblymember DeLong.

Assemblymember DeLong:

Thank you, Chair. Thank you very much for the presentation. I actually had a question, not a statement. The movement in Clark County to convert or limit the amount of existing evaporative cooling—that is happening?

Mr. Entsminger:

Well, we do have incentive programs, and our board recently lifted the limits on those. So, I believe right now, if your traditional evaporative cooler at your business is reaching its end of life, we have a water efficient technology program where I believe we will pay up to \$2 million. It is on a percentage basis, per program to incentivize people to install mechanical dry cooling instead of the traditional evaporative cooling. There is no mandate, there is no requirement that anybody converts from their traditional evaporative coolers, but there is a prohibition on installing new ones, and there is an incentive program to transition to the newer technology when your facilities reach end of life.

Assemblymember DeLong:

Thank you very much. Thank you, Chair.

Chair Anderson:

Thank you. Any further questions? I do have a quick question. Obviously, my prior questions to the last presenter had more to do with the smaller counties, but the permitting process in Clark County, how long does that usually take, traditionally?

Mr. Entsminger:

I hate to answer a question with a question, but permitting for what? Because, we are a link in the chain of whether they are applying for a building permit from the city or the county. Our standard practice at the water district retail level is what we call the "2-4-2 process" where they give us the plans, we review them within two weeks, we give them back to them. If they get it back to us in four weeks, we give them a yes or a no in two weeks. But that is not the entirety of the process, and I cannot really speak to the city and county as a whole.

Chair Anderson:

Thank you so much for clarifying what exactly I was— You were able to read my mind because it just had to deal with from your industry when it came to the permitting process. Thank you so much for clarifying that. Any further questions? Assemblymember Kasama.

Assemblymember Kasama:

Thank you, Chair. Thank you for being here with the presentation. My question is— And great to hear about the A's stadium. I did not realize that it is completely air-cooled, so that is wonderful that it is moving in that direction. I am just asking about some of the large resort properties and with their demand 24/7 with the people staying in the rooms and the floors; it is 24/7. Are they able to fully go to air cooled or do they have to have water cooled? I am just thinking about the demand and just the scale of those. Could you maybe just touch on that?

Mr. Entsminger:

Ultimately, it gets down to cost. The technology is absolutely there to do 100 percent mechanical. And we saw—I am forgetting the name of it—and it is not a huge resort, we saw a new casino on Henderson's Water Street that is 100 percent mechanically cooled, so it can be done. But there are trade-offs, and we have certainly heard from some folks in that industry that would like to have that conversation. I would say that that conversation is ongoing.

Assemblymember Kasama:

Great. Okay, so it can be done as far as it can cool the facility. It can be done; it is just a matter of cost.

Mr. Entsminger:

You can build a baseball stadium with 100 percent mechanical. You can build a hotel casino with a 100 percent mechanical. Some of it is the footprint. It takes more space to install traditional essentially air cooling than it does a traditional evaporative cooler. Some of it is the footprint of the property, and I think there may be situations where property was purchased a decade ago and now the rules have changed or you have to have that conversation, but going forward, I think people should be on notice that the property you buy needs to be big enough to accommodate the mechanical cooling.

Assemblymember Kasama:

Great. Thank you for that insight.

Chair Anderson:

Thank you. Any further questions? Thank you so much for your presentation today, and I am sure we will continue to be in discussion with you.

Mr. Entsminger:

Thank you very much, Chair.

B. PRESENTATION BY THE TRUCKEE MEADOWS WATER AUTHORITY AND TRUCKEE MEADOWS REGIONAL PLANNING AGENCY

Chair Anderson:

Next, for our second item under Agenda Item IX, we have representatives from the Truckee Meadows Water Authority (TMWA) and Truckee Meadows Regional Planning Agency (TMRPA), Mr. Danny Rotter and Mr. Jeremy Smith. Please join us here in Carson. Thank you both for being here today. You may begin when you are ready.

Danny Rotter, P.E., Assistant General Manager, TMWA:

Thank you, Chair Anderson; and, wow, sitting back there I had it all ready to go and I completely lost my thought process—the other Chair in the south, and the Committee members today. With me, I have Jeremy Smith. Gonna try and be brief here. I know we are at the end of the day.

I want to focus on three things: growth pays for growth; the planning that we do; and the collaboration that we do in Washoe County. In 2001, TMWA was created by Reno, Sparks, and Washoe County, and one of the first policies they implemented was that growth pays for growth. That means that growth brings their own water rights, they pay their share of infrastructure, and they build sometimes their own infrastructure to serve their demands.

Planning. We just completed our 2045 Water Resource Plan. You can see that at TMWA.com/wrp. And basically, that looks out 20 years at the resources that we have available to us and potential for that growth. That is about 20,000 acre-feet of additional demand on top of our existing 85,000 acre-feet of demand. And there is enough water resources to meet that demand. In there, one of the key differences is that water is very local. It is very different from southern Nevada to northern Nevada, and even in different places in northern Nevada, it is different. One of the key things that we have is the Truckee River Operating Agreement. That is over 30 years of litigation and negotiation for users on the River, and that determines how water is used, how it is returned to the River for downstream use. That is a major, major thing that we have, and so its flexibility for times of drought, its flexibility in times of excess that returns water to fish credit water, and so that is our governing rules for everything that we do and all the growth that comes our way, whether it is a large water user or a small water user.

We also collaborate very closely with Reno, Sparks, Washoe County, TRI-GID, and Truckee Meadows Regional Planning on all the things that we do. And a couple of those key things: we have an agreement with TRI-GID to return to deliver 4,000 acre-feet of effluent. Now, just one quick thing that is pretty confusing. The Truckee Meadows Water Reclamation Facility is not owned by TMWA. That is owned by Reno and Sparks, so they are actually delivering the water to TRI-GID and keeping it out of the River, but we are involved to make

sure that the return flow water rights are accounted for by TROA [Truckee River Operating Agreement]. And so, we are working with everybody to make sure that the water is whole, the River is whole, which is a good thing because it keeps the effluent out of the River. It keeps the nitrogen loading off the River and keeps fresh water in the River.

The other thing that we do is we have been working with Jeremy in regional planning and the project of regional significance. So, maybe Jeremy, if you want to touch on our work there and your work and then we can answer questions.

Jeremy Smith, Ph.D., Director of Regional Planning, TMRPA:

Thank you, Danny. Yes. Thanks very much for this opportunity to be here and thanks for including me, Danny. Yes, if you do not know about TMRPA, we were created by the State Legislature in 1989, and we create and maintain the Truckee Meadows Regional Plan, which helps to coordinate master planning, facilities planning, across Washoe County, including the jurisdictions, the City of Reno, City of Sparks, and Washoe County itself.

Also, as part of the statutes defining regional planning, NRS 278.026 defines “projects of regional significance.” And so, there are several things listed in that statute that trigger a review by the Regional Planning Commission. That is our technical advisory body, and they hold public hearings monthly. And one of those triggers is if any project—any request for the use of land, building permit, zoning, master plan, tentative map—if it requires the use of 625 acre-feet or more of water per year, that triggers that process, and there has to be a hearing versus conformance with the Regional Plan. So that is one safeguard that is in place in terms of water use for any single project or single entity.

That same statute also has other triggers in it, as I mentioned, specifically related to energy. In Washoe County, any substation that is constructed, any transmission line of 60 KV [kilovolt] or greater for energy, and any energy generation site of 5 megawatts or greater, that also requires a conformance review against the Regional Plan at the Regional Planning Commission. And so, we have a set of policies in the Regional Plan that allows us to do that work and bring those forward to the Commission. Over the past ten years we have done that many times, and through that process, we have noted that over 1,300 megawatts of renewable energy have actually been approved within Washoe County since 2015. A lot of that is constructed that is primarily solar, but just under 10 percent of that is geothermal.

The Regional Planning Commission has an interest in water use, has an interest in energy as well, and at the beginning of 2025, they tasked us at the Agency to do some research on data centers and high energy users and bring that information back. We have been working on that since then and engaged the community in several ways, had several meetings, and you can find out about our research by going to our website TMRP.org. There is an energy and data center page there that basically lays out four areas of interest that we have really dug in on land use, water, energy, and economics—the economic considerations.

Further, we have noticed that, as we have seen today, there are many different organizations and entities involved in this question and not everyone does the same thing. Some organizations do this, and others do that. We all have our roles, and so we have put together a schematic describing what each organization does, and how to get in contact with them via email or a website. That is available there, too. We are still working on the site and continuing to improve it. There are resources that you can get there as well. Some of them have been mentioned today, so it is a good one-stop shop to get started if you want to learn more. I encourage you to check that out.

Finally, we are, next week actually, going to be launching a widespread engagement effort with high energy use and really data center-oriented stakeholders, groups that we have heard from today and others that are not here. We are going to engage all those groups with a series of questions regarding data center use and high energy. You know, concepts, and then bring all that information back to bear in a big stakeholder meeting, take that to the public, and ultimately that will help us to refine our policies in the Regional Plan and how there is a lot of changes happening rapidly, so we want to stay on top of it. But further, we have been charged by our Regional Planning Governing Board, that is our elected-level board, to help work collaboratively with the jurisdictions and entities like TMWA to come up with recommendations for local ordinances or rules that would help govern the approval process for these kinds of data center requests. Thank you very much.

Mr. Rotter:

In addition to forgetting Chair Watts's name, also, I forgot to say that we only have applications for three data centers right now within the Truckee Meadows water service area. It appears they are all closed loop. They are all less than ten acre-feet, so they seem to be pretty small. It seems to be that the economics is driving that decision, just by the price of water and infrastructure in our area. I think with that we can answer any questions.

Chair Anderson:

Thank you so much. Well, I do have one question. Has there been any sort of discussion about utilizing a similar water efficient data center as what is utilized in the Clark County area in the Washoe County area?

Dr. Smith:

I have had a few conversations with data center operators and the sort of government affairs people. I can remember I had one conversation with Google's person, and their claim was that the Google data center in Storey County uses no water for cooling, only for domestic use, for like the bathrooms and whatnot. So, I think that technology, that kind of technology, you know, it varies, as we heard today, but yeah, it is also possible in northern Nevada.

Chair Anderson:

All right, see no other questions. I think you guys beat us down, or it is towards the end of the day. Thank you so much for being with us today and for providing this information. Looking forward to future discussions.

Next up we are going to actually have Mr. Bob Sweetin. He was in Section X A, and there had been a little bit of a misunderstanding when Mr. Dan Diorio, excuse me, came up. So Mr. Sweetin, if you would like to add any information, I will give you a few minutes.

AGENDA ITEM X—DATA CENTER INDUSTRY UPDATE

A. PRESENTATION BY INDUSTRY REPRESENTATIVES

[This agenda item was taken out of order.]

Chair Anderson:

The next item, again, Agenda Item X, and we have Mr. Dan Diorio from the Data Center Coalition and Mr. Bob Sweetin, partner with Davison Van Cleave, who will be presenting from Las Vegas. Welcome and thank you for letting us know that you had to present just a little bit earlier. You may begin whenever you are ready.

Dan Diorio, Vice President of State Policy, Data Center Coalition:

We do have some slides that were submitted to the Committee if we are able to bring those up. ([Agenda Item X A](#)) DCC [Data Center Coalition] is the national membership association for the data center industry. We have over 40 members, leading data center owners and operators as well as companies that lease large amounts of data center capacity. You can see our membership here on this slide from data center owners and operator members. Here are our large end user members, associate members, and our Industry Advisory Council, which include businesses from across the ecosystem from construction firms to electrical manufacturers and others.

I will try to retread too much of the discussion that has already happened. I do want to point out, throughout the slides here today, there are two main types of data centers. There are self-perform enterprise, and some may refer to these as hyperscalers as well. These are companies that are going to own and operate a data center for their own use, and typically, those are cloud providers or companies like Meta, which are operating a data center for their own products and services. You also have multitenant built to suit, colocation, as some may refer to it, which are companies that will build a data center and lease out space inside. They can lease out a building, an entire building to one tenant, a series of buildings to one tenant, or they may have 20 tenants in the building, 200 tenants in the building, it varies. This is not a monolithic industry by any means. There are various sizes, there are various corporate structures, various types. So, it is important to keep that in mind when discussing the data center industry—that it is not all the same.

Just briefly inside a data center. Just want to make sure and kind of demystify what goes on inside a data center. Of course, in the middle there you will see what is the guts of the data center, which are the servers. That is the brain of the Internet there. The servers are going to be connected to fiber, which is a key infrastructure consideration as well. That is the network. They are going to be connected to reliable power, and they will need to be cooled, and I will get into this here in just a second. But there is no one-size-fits-all method of cooling. If data centers are not cooled, the temperature in the server room will rise as much as a degree a minute until ultimately those servers fail. And if those servers fail, then all the products and services that we rely on every day go down.

In addition, you will have backup power available as well. This is essential infrastructure. Data centers need to be able to provide continuity of services in the event that grid power is interrupted. As many have pointed out, especially in the public testimony, these backup generators are largely diesel, as is the case with many other essential infrastructure and industries throughout the economy. Those generators are highly permitted. They can only run in certain conditions. They are permitted by the EPA [Environmental Protection Agency]

down to the state. They can only run when power is interrupted and for required testing and maintenance. Additionally, you will have typical things you see in an office space, you know, office space, cafeterias, community meeting rooms. These are places where people work.

You cannot discuss data center energy and water demands without discussing what is driving data center demand, and we are all driving data center demand. In the next five years, consumers and businesses will generate twice as much data as we did in the past ten. We have two-thirds of the global population online with 45 percent coming since 2018. We still have 2.6 billion people not connected to the Internet, but they are coming on rapidly. But if you bring it down further, the average household has 21 connected devices. It is our laptops, and it is our phones, but it is smart TVs, multiple smart TVs, multiple smart watches, ring doorbells, nest thermostats, garage doors, lights. My oven is connected to Wi-Fi. I can preheat it from here. I do not know if I need to, but it is a nice thing to have. But all of that requires digital infrastructure, and I know for many folks in the room, if you have teenagers, you can effectively double that 21.

Again, just looking at another graph to illustrate how we are all using digital infrastructure, this is the average monthly household broadband consumption. Now if you multiply this number out by your neighbors, your neighborhood, your precinct, your city, your county, your state, we use the Internet a lot, and it is all driving demand for digital infrastructure.

Data centers are not just AI, and data center energy demands are not just due to AI. AI is an important growth driver. It has broad applications throughout the economy, whether it be detecting financial fraud, detecting water leaks in systems, health care applications. But the vast majority of data centers being built today are to service, especially cloud infrastructure, which is the underpinning of our entire economy. Ninety-five percent of Fortune 500 companies operate on the cloud, and these are services that we rely on every day. It is online banking and financial transactions; it is telehealth appointments; it is electronic health care records; it is online classrooms; it is online payment platforms; it is online purchases; and it is the fun stuff like streaming video, as well. It is autonomous vehicles that I rode in here during my time in Las Vegas. All of this is really driving economic growth. It is driving economic development, but it is the key underpinning to understanding what is driving energy and water demands. Again, the variety of services and industries supported by digital infrastructure.

I will not dwell on this slide a little bit, but I have some economic data that is in the slide packet that I am happy to answer questions about, but I want to get into data centers and water use, which I know is the main topic here.

It is important to understand data centers in the context of other industries, and I think there are significant misperceptions that are happening because the lack of contextual evidence for data centers. As you can see on here, and I will give a few key data points. Data centers are estimated to use 39 billion gallons per year of water in 2025 from Bluefield Research. That is compared to utility water leakage, so just water loss leakage in systems, 2,500; food and beverage, 533; and semiconductors, 59 billion gallons per year. Data centers are amongst the most efficient water users throughout the economy. In Virginia, the world's largest market for data centers, 83 percent of data centers use as much if not less water than a large commercial office building. It is from the Joint Legislative Audit and Review Commission report that came out in 2024. The contextual comparisons are key for understanding data center water use.

As many have pointed out, there is a water energy nexus. Now, water energy nexus is again also key to understanding. There is indirect and direct water use, and so, for the energy water nexus, if you use more energy for cooling, you will use less water. If you use more water, you will use less electricity. Finding the right cooling system depends on the local conditions. It depends on the infrastructure available, and it depends on the type of technology readily available as well. Direct and indirect. Direct water use at data centers is largely minimal, and then most of the numbers that have been described are accounting for indirect water use for energy generation. That is something that is inherently outside of the industry's control generally. If you are on grid power, you cannot control those resources, and so, it is important for understanding the data to know exactly what is being included in the numbers that are being put out there.

Lastly, I will conclude with just how data centers permit. When you permit a data center and how you model out water use—you model out the worst-case scenario. You model out for what may be your ultimate peak on the worst absolute worst day of the year. It is 115 degrees, water is evaporating sheerly from the heat, and you may need to draw more water. That is a worst-case scenario. So even if it is in a permit, that daily water draw will hardly ever, if ever, approach that number because that is, again, the worst of the worst-case scenario.

There are different cooling types as many have described. And again, there are several different local factors that will affect cooling. For cooling types, closed loop systems are very much the norm for data centers. They have been deployed for years. A lot of data is actually modeled on old strictly evaporative cooling systems. Closed loop systems are the norm, and again, it is not a new technology, and it is not an unproven technology, being deployed for years. Directed chip and liquid immersion cooling are very much water- and energy-efficient cooling systems. Again, not novel technology. It is already being deployed and has been deployed.

Data centers, as a whole, this is a far more efficient way of doing all the computing and processing that we need. Previously, you know, we can remember server closets in the basements of office buildings, doors half hanging open. I can remember one for mine, that the cooling alarm was constantly going off. It was hard to regulate and was not very secure. As we saw the migration to data centers throughout the late aughts and the 2010s, what we realized is that by aggregating the demands together and utilizing economies of scale, we can do all the computing and processing we need in a far more efficient way; 2010 to 2018 output rose 550 percent, energy consumption rose 6 percent. That still holds true today. Considering all the computing and processing we need throughout our economy, data centers are far more efficient way of powering that computing and processing.

Data centers and energy. There has been a lot of discussion about cost allocation. There has been a lot of discussion about load growth on the system. First, I want to say unequivocally, the data center industry is fully committed to paying our full cost of service for electricity. We are dedicated to protecting ratepayers. We expect utilities and regulators to help ensure that we pay a full cost of service because we are just an end user. We cannot control those rates, and we cannot control those bills. We expect that bill to be the full cost of service. And we want to not only ensure costs are allocated, but we want to protect ratepayers against things like stranded assets.

The data center industry has been actively engaged in large load tariff proceedings throughout the country. A well-structured large load tariff provides utilities the certainty that they need to ensure projects come to fruition. They can build infrastructure and ultimately, they can ensure costs are allocated. And it also provides data centers visibility

into what the rules of the roads are going to be. There are several instances throughout the country where a well-structured large load tariffs, such as Indiana Michigan Power, in which the industry was a party to. As you can see in that lower right corner, Indiana Michigan Power is now going to lower rates because of data center revenue coming in with a large load tariff. Georgia Power, same thing. While not a tariff, it was different rules put in place but with a very similar aim. Georgia Power froze rates for three years. They are going to lower rates at the end of that three-year rate freeze, and that is in the fastest growing market in the country.

Chair Anderson:

Sir, I am going to ask you to . . . I think you have got about three more slides, maybe four more slides, and you are right about at . . .

Mr. Diorio:

Absolutely.

Chair Anderson:

Thank you.

Mr. Diorio:

Thank you very much. Lastly, data centers are not the only source of load growth, and we also know that large loads have the ability to put downward pressure on rates, as I realized.

Data centers are actively committed to advancing clean energy and greening the grid. Last year, technology and web services companies, mostly data centers, were responsible for 84 percent of all corporate clean energy procurement from January through July. This is an industry that is actively advancing the clean energy transition and getting and deploying its own private capital to get more clean energy onto the grid.

These are key siting considerations for why data centers decide to locate where they are.

What we see in data center trends is certainly absorption very much outside of the primary markets. Nevada poised, certainly, to be a competitive market down the road.

And then of course, why data centers? Several of my slides illustrated the economic benefits, but I would like to highlight at the bottom, this is a catalyst for clean energy development, catalyst for clean energy deployment, and a catalyst for infrastructure investment with the data center industry paying its full cost of service for that infrastructure investment.

With that, I am happy to take questions from the Committee, and thank you.

Chair Anderson:

Thank you, and it looks like you went through those last three like really quick. So, thank you for doing that at the warp speeds that you did. I think first we are going to start off with Chair Watts.

Chair Watts:

Thank you and thank you for the presentation. First question. You mentioned the benefits that can come from a well-structured, large load tariff. You mentioned a couple of states. I would just ask if you could follow up, both, what those states are, and also, if you have principles or elements that you would consider important elements of a well-structured, large load tariff.

Mr. Diorio:

Thank you, Chair. Yes, we can certainly do that. Again, we have been party to those proceedings throughout the country. They are regulatory proceedings, so for individual utilities mostly, but we can absolutely give you a sense of those principles. We have those very clearly outlined, and I can follow up with that.

Chair Watts:

Great, thank you, and I have one other question. Looking at the water side of the equation, I think you have discussed there are different considerations. You have discussed how the technology has changed. You saw in some of the earlier presentations, again, that there are some, especially legacy technologies, that are more water-intensive. Do you have any thoughts on establishing standards moving forward that might not be technology-based, but we saw that kind of water usage efficiency as one metric. Do you have any thoughts on essentially creating some sort of standards or other system to ensure that facilities are meeting those higher standards moving forward?

Mr. Diorio:

Thank you, Chair. Yes. What I would say is water usage effectiveness, I think, is a metric that most data centers are actively tracking. I think as far as standards moving forward . . . And you mentioned not technology-based standards, which I think is key, because the technology is moving so quickly here that it would be, unwise, I think, to restrict it because of, directed chip and liquid immersion for what is coming through. What I would say is, I think as long as those policies are well-crafted to understand the energy water nexus as well and to not restrict, I think the ability to determine what is the best, you know, cooling system for a particular location, I think would be a well-structured policy for that. It is all about, I think, ensuring that the industry can continue to technologically innovate because it has been, and I think that is the key here, is understanding what the data has shown recently so much as what it has shown in the past.

Chair Watts:

Thank you. And again, my ask as a follow-up is if you can work on that and get some information to us that can help us structure that cause I absolutely understand what you are saying. Again, I think you have heard some of the concerns, and even one of my colleagues mentioned that is the direction that we want to go into because at the end of the day, we need to be able to reassure our communities that there is a certain standard moving forward. And so, while we are hearing about that commitment, as policymakers, we need to make sure that folks feel reassured on that as well. I would appreciate any follow-up thoughts you have on effective ways to move in that direction.

Then I just wanted to mention, because you went over it very quickly, but there were questions earlier about siting consideration, so I just wanted to make sure everybody is aware that there is a slide all about that in your presentation, and everyone should take a look at that.

Mr. Diorio:

Chair, if I may respond briefly. Yes. My key siting consideration slide, overarching time to market is obviously key. We are on a very steep demand curve, and we are not even close to meeting the demand that we are on. But there are a variety of different categories that data center companies consider under that time to market. And I, again, just want to point out access to clean, reliable, affordable energy is certainly one of them. I am happy to answer additional questions on that slide, too.

Chair Watts:

Thank you. Thank you, Chair.

Chair Anderson:

Thank you. Assemblymember Considine.

Assemblymember Considine:

Thank you, Chair, and thank you for the presentation. I just had one question. Essentially, you talked about going back 20–30 years where everything was in one floor, you know, the bottom of the building, and then in 2010, you know, suddenly we went to like smaller traditional computer centers. Eight years later, 89 percent are these larger utility-style huge data centers. That is what we are working on now. That is what we are focusing on. But we also know that tech is moving, like exponentially fast. You even mentioned technologically innovating. It is continuously going; its leaps and bounds; it keeps getting faster. So where do you see this being 15 years from now? Will we still be looking at large data centers? Will they start to become, morph into something else? I know chips are constantly changing and getting smaller. I just wanted to get your idea of where we will be in 15 years.

Mr. Diorio:

Sure. Thank you, Assemblymember. I think what is key to understanding the future is understanding demand. Right now, demand has shown no signs of slowing. As demand continues to show no signs of slowing, we will see continuous need to build out the infrastructure to accommodate that. You are right, chips are getting more efficient, which is again why I think data centers are looking to continuously refresh the equipment. As representing the leading data center owners and operators, what I can tell you is that they are constantly recalibrating to demand. One of the things that we take very seriously is the idea of forecasting. We have been actively working on—and I would be happy to share this with the Committee—on forecasting principles, ways in which we can give utilities and regulators additional tools to solidify the forecast that they put forward so that we can rightsize infrastructure investments for that. Rightsizing the infrastructure is key to ensuring that ratepayers are protected. It is key to ensuring that there are no stranded assets so that we do not overbuild, but we also do not underbuild as well so that we can accommodate all forms of economic development.

What I would say is that you will continuously see data centers drive energy efficiency. It is a significant, you know, if not the largest operating cost of the data centers, it is one of them. So, energy efficiency is key to this entire industry, as is water efficiency as well, because data centers have their own sustainability goals, and they have their own water positivity goals as well, and they are continuously working toward those. So, I think what we will continue to see is new tools being able to drive those goals forward, new tools being able to optimize our energy grid as well, things like grid enhancing technologies that data centers are investing in. There are AI applications for using the grid efficiently as well; and optimizing transmission and line ratings and voltage ratings as well. We will see data centers help facilitate what ultimately, I think, is an efficient and rightsized investments in the utility grid and in the digital infrastructure that will help to power it.

I do think as well, if I could just briefly, I know this is a long answer, but again, going back to my slide, data centers are powering investment in the grid right now, and what we see is that areas of the country with higher low growth have lower prices overall. That is from Lawrence Berkeley National Labs. When you have large users on the system, you can spread those fixed costs out over the system. We have just come out of about 20 years of pretty flat load growth as a country, and now we have several growth factors, including data centers, but also manufacturing and electrification and hydrogen. And so, utilities having the large load users on their systems to invest in the grid and to be able to really have those large load users pay for that investment, I think, is key to long-term economic growth and buildout of a modern utility grid.

Assemblymember Considine:

Thank you very much for that answer, and yes, if you could share with the Committee the forecasting principle for the rightsizing, we would appreciate that. Thank you, Chair.

Chair Anderson:

Thank you. I do have a question, and it relates a bit to slide number . . . I do not know which one it is. It is the data centers and water usage item, but it has to do more with the permitting process. I am hearing from individuals in some of our smaller counties where there are literally three people working the entire county office who are being inundated with questions around permitting processes, being asked for that. What exactly, what role has the Data Center Coalition really looked at the permitting process, and about how long does it usually take to get one of these permits through; especially if it is a smaller county that does not have numerous employees?

Mr. Diorio:

Thank you, Chair. I do not have specific length for county level or city level permitting. What I would say is that permitting, I think, is a key concern. There is always a balance in permitting between fostering economic development, but ultimately ensuring that the permit does the type of review that is necessary. Data centers, when they come into a community and when they are doing due diligence, they are looking at the resources available. They are discussing with the infrastructure providers how is your system set up; how much water is available; what types of water—because we have several data centers, if not the vast majority; also using recycled water or nonpotable sources as well—what do you have available; and what is your service level to be able to serve this type of facility, and then making adjustments based on that. But it is key right now, I think, is the permitting processes. And it is a combination of how do communities balance these requests that are coming in, and I certainly understand the stress that may happen on smaller communities

for that. But at the same time those communities have to do the due diligence, and data centers are willing partners in doing the due diligence to ensure that that system is not strained. I do not think data centers are interested in coming into a community and straining that local resources. So, it is a delicate balance, and they will continue to be an active partner in that.

Chair Anderson:

I appreciate that answer because so many of our smaller counties are going through this process. But then also, we have to take into account that 82 percent of our land is owned by the federal government. Is the permitting through the federal government easier to be done or more difficult based upon some of the current budget constraints and cuts that have occurred?

Mr. Diorio:

Thank you, Chair. I would say permitting to the federal government, while I do not have a specific data point that I can reference, I would argue it is likely a lot slower, as are most things with the federal government. It is something that we have advocated for as an industry at the federal level, which is ways to streamline the permitting process, because I think what is clear right now is we are having trouble as a country being able to permit the right types of projects, to move them forward in the process, and get them onto our grid, and that very much includes clean energy projects as well or water infrastructure projects. And so, streamlining permitting at the federal level is an industry priority, and it is something we are actively advocating for.

Chair Anderson:

Great. Thank you. Let me see if there are any more questions. Seeing none, thank you for joining us today and for the opportunity to hear this presentation. I am sure we will more than likely have more conversations with you in the future. Thank you.

Mr. Diorio:

Thank you. Look forward to it.

Chair Anderson:

Thank you. All right, I think we will get back on track with our . . . Let me make sure that I have got the agenda correct. We are on number VIII, which is integrated resource planning and automated demand responses.

Next up we are going to actually have Mr. Bob Sweetin. He was in Section X A, and there had been a little bit of a misunderstanding when Mr. Dan Diorio, came up. So, Mr. Sweetin, if you would like to add any information, I will give you a few minutes.

Bob D. Sweetin, Esquire, Partner, Davison Van Cleve, P.C.:

Thank you, Chair, and thank you members of the Legislature. We are an energy boutique firm. The firm has existed about 20 years. I have worked there about 8. My partner, Curt Ledford, has been one of the few lawyers in the state practicing energy law on the private side for about 20 years, and I have been doing it for about 7. The last 4 years, we have basically just lived and breathed data centers. Some of the numbers we have talked about today, to give you an idea of that kind of load, those numbers that NV Energy went

through earlier, what is under development, what is under request, we collectively, our firm represents about 13 gigawatts of that data center load, and of the load that is currently under contract with NV Energy, that 5 gigawatt number they gave, we are a substantial portion of that. So, this is our real wheelhouse.

I did have some other comments. I did not do a presentation. I am just going to quickly go through a few points of what is happening here in Nevada, and what we are seeing that I think are germane. Garrett Weir, my good friend from the PUCN, earlier said, Nevada is ready to embrace the challenge. This, I think, is a really unique opportunity that the state has right now. And jumping into this issue that has come up throughout the day of data centers should pay their way. We are calling, you know, we often call this that the beneficiary pays. So, if you are a data center and you come in to, and I will, just to be efficient, use the example earlier from our friends at NREA, the Rural Electric Association. They are concerned about supply constraints, material constraints, costs are going up because these folks are selling off the data centers instead of to the local utilities. We are finding that is a real opportunity, and the reason that is a real opportunity is because the utilities do not have to construct this stuff anymore like they used to. And when they, when the utilities constructed it, the ratepayers ultimately paid for it over time in little, small billing increments. What we have a real opportunity to do here in the state now is have these large data centers pay for it. They come in, they need the facilities, they pay for them upfront. They get them installed. I will talk in a few minutes about the stranded cost component of that, but that is happening both, and NV Energy referenced this component; this earlier, but also outside of NV Energy in the areas they do not serve. This is the standard operating model. It is kind of nationwide, but here in Nevada, we are really uniquely situated to capture a lot of this because of our unique regulatory and statutory framework.

Speaking specifically to water, which has come up a ton and the point of today's hearing, I do have some metrics that are pretty interesting. The legacy data centers, which is where, and look, I appreciate all the public comment today. That is my life. I just go around rural Nevada and talk to folks and attend council meetings and commission meetings and things, and when you Google the information, it is all aggregated across the country, and we have heard a lot of that today from our national trade groups. Legacy data centers, let us say at 100-megawatt size, a medium-sized data center, you are at about 300 million gallons a year under the old frameworks of water use. That is the equivalent of, Mr. Entsminger referenced to earlier, basically think like Bellagio, like a resort with a big fountain and a bunch of water use. That is about what you are looking at or in the alternative to 18-hole golf courses. That is the other metric that I like to use there.

Now, and I will submit that the 13 gigawatts that our office, roughly 13 gigawatts our office represents currently, and in addition, those being built with NV Energy, I am not aware of any of those that are not intending to use a closed loop system and also intending to use recycled water, and the totals on that are 1 to 3 million gallons a year—and that is like staggering. Like 300 million gallons a year to 1 to 3 million gallons a year. It is roughly the equivalent of 10 to 20 households in the State of Nevada or one automated car wash, which is pretty interesting to think about.

So, data center use . . . Nowadays, the ones built use about the same amount of . . .

Chair Anderson:

Sir, I am going to need you to start wrapping it up, please.

Mr. Sweetin:

Yes, okay. Final point I am going to make is on stranded assets. What we are doing there, and these are these assets that get built and there are concerns, hey, what if nobody ends up using them. That concern has been heavily mitigated because the contracts that are being signed by these data centers, whether it is with NV Energy or whether it is some other utility, generally we are seeing 20-year terms with a 20-year automatic renewal. And the reason for that is because the costs of the infrastructure are so astronomical, and these are long-term investments. So, these are investments that are not going to hurt ratepayers, and not going to increase rates the way we have traditionally thought.

I will just conclude my comments with a lot of the right people, I think, are around the state right now. There are a lot of lessons that we can learn from prior booms and busts, and this is a real opportunity for the state to build out our education system, to build out roads. We have projects that are looking at building relief roads on the I-80 if you have ever had to get stuck in that traffic. And that is all I have got.

Chair Anderson:

Thank you so much. Are there any questions from the Committee? All right, I am not seeing anyone. I will give Chair Watts a chance if he would like to do it. Well, thank you so much for presenting to us today.

We are now going to move on to the data center, to [Agenda Item XI](#).

B. PRESENTATION BY GOOGLE

[This agenda item was taken out of order.]

Chair Anderson:

Our presenter is joining us on Zoom. So, AVH, will you please get that pulled up? Again, thank you so much for working through your schedule with us. We are glad you were able to join us, Mr. Huebner. Please introduce yourself for the record whenever you are ready.

Tyler Huebner, Central United States Regional Manager, Google Energy Market Development:

Good morning. Thank you to the Joint Committee for giving Google the opportunity to present here today and for accommodating my schedule. Google does data centers differently. Our data center strategy is focused on being a responsible grid citizen. We are committed to ensuring our infrastructure investments drive reliable, affordable, and clean energy for all while protecting local ratepayers and fostering economic development. Our commitment to affordability recognizes the rising costs for families today. Google is committed to paying our way, ensuring our long-term investments strengthen the communities and grids where we operate.

Net new energy investments are a core priority. Google has added over 22 gigawatts of new clean energy capacity to global grids, the equivalent of powering 4.7 million homes. This includes investing in next frontier technologies like advanced nuclear, advanced geothermal, and long-duration energy storage to expand the total energy supply. To ensure responsible growth, we have pioneered important energy policies that ensure Google and all large loads are protecting ratepayers while creating innovative opportunities to accelerate new clean technologies. This brings me to our innovative Clean Transition Tariff, or CTT, that we

pioneered right here in Nevada. I believe there is a couple of slides that we have, if someone could post those, otherwise, I can attempt to do that. Super, thanks.
([Agenda Item X B](#))

Chair Anderson:

They are ready; they are up for you.

Mr. Huebner:

Awesome.

Our Clean Transition Tariff structure brings utilities and customers into long-term energy supply agreements to facilitate new projects that deliver clean, firm capacity to the grid. The CTT allows customers to meet rising demand with 24/7 carbon-free energy through existing utility relationships while sharing long-term benefits such as a cleaner and more reliable grid with the broader community. NV Energy was the first utility to operationalize this approach through a first of its kind agreement with Google. Together, we assessed solutions for local, clean capacity and selected enhanced geothermal. NV Energy then partnered with developer Fervo Energy to integrate 115 megawatts of new geothermal power into our CTT partnership, delivering its full capacity value to our operations. Enhanced geothermal diversifies Nevada's capacity resources, creating a more resilient local grid. Under this CTT framework, Google bears all premium costs of this technology, fully protecting other ratepayers from the expense of accelerating its deployment. And if you could please click to the next slide.

Building on this first CTT, we are very excited to announce that over the past two months we have announced three new CTT deals. In Nevada, we announced another advanced geothermal project in February. Working with Ormat Technologies, our power purchase agreement will enable up to 150 megawatts of new capacity from 2028 through 2030.

In Minnesota, in February, we announced a partnership with Xcel Energy to supply a new data center in Pine Island, Minnesota. As part of this agreement, we are advancing a clean energy accelerator charge, which uses the same model as the Clean Transition Tariff that we previously developed here in Nevada. However, geothermal is not the technology of choice for Minnesota. Instead, our partnership there will bring forth 1,400 megawatts of new wind, 200 megawatts of new solar, and will pioneer 300 megawatts of long-duration energy storage. This is the largest battery project announced in the world by gigawatt hour energy capacity and will support reliability on days when the wind is not blowing.

Then, just last week, we announced another version of the CTT with DTE Energy in Michigan. This partnership includes 1,600 megawatts of solar aligned with Michigan's clean energy goals, 400 megawatts of four-hour duration energy storage, as well as development of 50 megawatts of newer technology long-duration energy storage. We are also going to use 350 megawatts of demand response, helping keep the grid reliable during its most critical periods by modulating how much energy the data center uses itself, and 300 megawatts of a bilateral, clean resource in partnership with other Michigan utilities.

Our message today is simple. Google is committed to responsible data center development. Through frameworks like the Clean Transition Tariff, we are ensuring that our presence is a net positive for the communities we call home. We are very excited that we pioneered the CTT here in Nevada, and we thank NV Energy and the Public Utilities Commission of Nevada for their support. As we scale this model, we continue to accelerate new clean energy and

capacity, ensuring we protect ratepayers along the way. That concludes my presentation. Thank you.

Chair Anderson:

Thank you. Are there any questions from the Committee? I do have one, as I think some people might be thinking about, oh, so sorry. First, I will go with Assemblymember Considine, please.

Assemblymember Considine:

Thank you, Chair, and thank you for that presentation. I am just trying to conceptualize how this works. When the 115 megawatts of enhanced geothermal power is created, does that power go directly into the NV Energy pool of power and then goes to the data center, or are these aligned directly with generating the power directly into the data center?

Mr. Huebner:

Yeah, it is an excellent question. Thank you. This project will be utilized by NV Energy to supply power to the whole NV Energy system. It does not go directly to the data center. And then, Google as a customer—we are a customer, a full customer of NV Energy—so we are getting the electricity from the NV Energy system.

Assemblymember Considine:

Thank you.

Mr. Huebner:

Does that answer your question?

Assemblymember Considine:

Yes.

Chair Anderson:

Next, we will go with Senator Ellison, please.

Senator Ellison:

Thank you, ma'am. I hope you can hear me all right. Thank you for the presentation, but I got a couple of questions. You say you are going to be partnering with NV Energy, but is the increase going to flow through back to NV Energy's customers or is this going to be something that you are going to operate on your own? That is my first question. And then the other question is how big is the acreage you see is going to be on solar energy?

Mr. Huebner:

In regards to the geothermal project with NV Energy, the way that it is structured is that NV Energy will be . . . So Fervo Energy is a geothermal developer, and they will develop the geothermal power plant itself. And they will sell all of their energy to NV Energy and NV Energy, through the Clean Transition Tariff, can basically send all of those costs directly

to Google, as we have volunteered to be on this tariff and to use that specific resource as what we are going to pay for through the tariff. And so, for the geothermal technology that we have worked on, the 115 megawatts, there will not be any costs paid by any other ratepayers.

Senator Ellison:

Okay, and then how about the . . .

Mr. Huebner:

Acreage for solar?

Senator Ellison:

Yeah.

Mr. Huebner:

Yeah, on behalf of Google, I do not know that we have a specific answer. I do have experience in the solar industry and there was sort of a rule of thumb that for every megawatt of solar development was about five to seven acres of land. That could be changed. I was in that industry about five years ago or more, but that was a kind of a rule of thumb that may help you as you think about that size.

Senator Ellison:

Thank you, and thank you, Madam Chairman.

Chair Anderson:

Thank you. Chair Watts.

Chair Watts:

Thank you, Chair. Thank you for that presentation. I appreciate getting the overview of this tariff, which it sounds like has multiple benefits in terms of allowing a partnership with the utility, maintaining Google in this instance as a large customer, providing for that kind of cost containment, and also specifically ensuring that we are bringing on clean energy. I am sure you heard, so far through the meeting today, the concerns that we are hearing from people across the community related to resource impacts, impacts on electricity rates, and potential impacts to our clean energy standards. It seems like this is a powerful tool. It is done on a customer-by-customer, project-by-project basis. My question is, with the experience that you have had so far, do you see any improvements that could be made to that process or any broader policies that could be put in place to create the guardrails to ensure that this is what we see going forward? That we can provide assurance to people in the community that any data center projects are going to, they are going to be bringing clean energy online, they are going to have that cost containment, and are there any potential process improvements that you could see, either with the Clean Transition Tariff or in addition to it?

Mr. Huebner:

Yeah, I was getting there. Sorry, just taking some notes. Thank you, Chair Watts. This is an aspect, kind of gets back to where I started my presentation today, is Google is really focused on doing data centers responsibly. So, certainly to the extent we heard from a number of Nevada residents today expressing their thoughts on what that means and certainly that is an important conversation and one that ourselves as a company, our industry, and all the residents in Nevada, along with yourselves, should have that conversation about what does it look like moving forward to develop those data centers responsibly. From a clean energy perspective, Google has very ambitious corporate goals, and we are really excited about developing these new technologies so that we can help meet them, and we think that based on our calculations, our carbon-free energy is about twice that of the Nevada grid as it is today when we think about our Nevada operations. So, developing these types of technologies and bringing them forward is really instrumental in being able to have those achievements and continue to address clean energy.

As far as ratepayer protection, I, myself, was a former Public Utility Commissioner in the State of Wisconsin where I reside. I would suggest continuing to work really closely with your Public Utility Commission there in Nevada and think through what are the challenges that they may be seeing as it comes to data centers and large loads and making sure that they have the rate-making capabilities to accomplish what they need to accomplish going forward. It is my opinion that the PUCs [public utility commissions], by and large, do a very good job of trying to wrestle with these extremely complex rate-setting issues and trying to find the fair and just and reasonable rates that would apply to large load customers, residential customers, and everybody in between. Thank you.

Chair Anderson:

Any further questions, or did you have a follow-up, Chair? I am sorry.

Chair Watts:

Thank you. I think that is helpful in terms of looking at what the Public Utilities Commission is doing. Obviously, they brought forward this tariff structure. Again, I think one of the things that we are looking for is to make sure that we have some broader certainty across the board and that that process is working. I think I would just like to continue that conversation to see what we can do to build on and strengthen this process. Thank you, Chair.

Chair Anderson:

Thank you. Assemblymember DeLong.

Assemblymember DeLong:

Thank you, Chair. Thank you very much for the presentation. I have a question on, just in general, the Clean Transition Tariff structure. What is it intended to cover, specifically, because I am assuming it is a charge on your power usage? Is that correct?

Mr. Huebner:

That is exactly right, Assemblymember DeLong. The way that the CTT works for us is we pay our base. We have our base rates through NV Energy as a customer in the appropriate rate classification that we qualify for, and so we are paying our full share of our costs under

that rate structure. The CTT, the specific resource or resources that we would pay for, we are sort of bringing along with the utility, bringing these ideas forward. That is a premium that we would pay on top of that. And then, because we are paying the full cost of bringing that electrical generation resource online, but it is providing energy and what we call capacity value for the peak value to the whole NV Energy system. We are then getting what is called a "credit" back for the energy and the capacity value that is created by that new technology.

Assemblymember DeLong:

Thank you very much.

Mr. Huebner:

So functionally, that is how it works, yep.

Chair Anderson:

Thank you. Any further questions? I did not know if Assemblymember Considine, if you had another one or if you are good?

Assemblymember Considine:

Thank you, Chair. I do not know if my other question kind of just got asked, but I will ask it anyway. So, just for example, if Fervo creates more than say the 115 megawatts of power, so there is more power generated than the CTT agreement creates, is NV Energy, can they buy the power? Are they required to buy the power? Is Fervo allowed to send that power elsewhere? I am just trying to figure out if that is how that works or if that is something that you are sort of banking for an expansion.

Mr. Huebner:

Thank you very much, Assemblymember Considine. I do not know the answer to that specific question. I am not sure if the— I am sure technical limitations for the geothermal and the wells that they are building and the capability to produce power. There also may be limitations related to the electrical grid and the interconnection or the ability to actually send that power on the grid. Those are some of the types of considerations that have to be made, but I actually do not know the answer to whether Fervo, if they were to produce more than that 115 megawatts, what would happen to that energy. But we can certainly follow up, and we will do so. Thank you.

Assemblymember Considine:

Thank you. That would be great.

Chair Anderson:

Thank you. Thank you so much for the questions and also, safe travels. It is pretty clear that you are in the airport, so hopefully you are able to make . . .

Mr. Huebner:

Yeah, sorry about that.

Chair Anderson:

No, it is okay.

Mr. Huebner:

Thank you for accommodating my schedule.

Chair Anderson:

Thank you. Safe travels and thank you for that information. I think all of us will be more than likely contacting you a few more times.

Mr. Huebner:

Appreciate it. Thank you so much.

Chair Anderson:

Thanks. All right, so we will be moving on back onto the schedule and moving on to Number IV, Data Center Policy Trends: Water, Energy, and Incentive Policies.

AGENDA ITEM XI—DATA CENTER BUILDING DESIGN CONSIDERATIONS

Chair Anderson:

We are going to receive a presentation on data center building designs from the Green Building Initiative and hear from Ms. Emily Bowers and Miss Abby Benesh. I know our presenters tried very hard to be here in Carson City, but flights ended up being canceled. I am sorry we could not hear from you in person, but we appreciate that we can still receive your presentation. I believe you are on Zoom; and you may begin when you are ready.

Abbey Benesh, Director of Advocacy, Green Building Initiative (GBI):

Thank you so much, Chair Watts and Chair Anderson, for the opportunity to speak today. I will just pass it off to my colleague Emily to introduce herself as well.

Emily Bowers, State and Local Representative, GBI:

Good afternoon. Thank you all for allowing us to speak virtually today. We do wish we could be with you, and it has been a very long day for all of you, so we will be mindful of time. Thank you.

Ms. Benesh:

Yes, absolutely. Thank you to everyone in the room, like Emily said, for giving us a few more moments of your time.

Today we have heard a lot of really important comments, and questions, and concerns, obviously all related to data centers, and we are excited to have an opportunity to really highlight a solution to some of those concerns. GBI is a 501(c)(3) nonprofit organization. Our mission is to improve the built environment's impact on climate and society, and the

way we do this is through our Green Building certifications. So most relevant here is going to be our flagship rating system, Green Globes. It is the only ANSI-approved [American National Standards Institute] whole building certification designed for all types of commercial real estate projects including data centers. ([Agenda Item XI](#))

This year, GBI is really excited to be celebrating 1 billion square feet certified. It is worth noting that over 157 million of those square feet are actually here in Nevada. So, with that being said, Nevada is important to us. We have a presence here, and we want to help you hold data centers accountable. And with that, I am going to pass it back over to Emily to dive in a little deeper.

Ms. Bowers:

Thank you so much. The world's building stock will double by the year 2035. That is equivalent to building in New York City every month. And this, of course, includes the expansion of data center development. The International Energy Agency reported that data centers consume nearly 1 percent of global electricity and contribute to 0.3 percent of CO₂ [carbon dioxide] emissions, and this market is rapidly growing, particularly with the advancement of AI. And you can proceed, Abbey.

GBI certification, Green Globes, is no stranger to the Nevada market. As my colleague mentioned, we have certified over 157.4 million square feet of commercial and multifamily property in the state, namely in Assemblymember Watts's District where we have certified over the majority of this in every casino and hotel on the Las Vegas Strip. Green Globes was also part of the landmark green building tax abatement where we strengthened buildings throughout the state and made them more resilient as a whole. And we wanted to just list our impact to date with the various building types that we operate in. The majority of that right now is of course data centers. You can proceed.

Today we have heard incredibly important comments regarding the expansion of data centers in the Nevada market. Data centers do use energy, and in some cases, they use water. These are fair questions for any community to ask, but what is equally important to highlight today is how dramatically green building certification can change the design and the output of these buildings. Green Globes pushes data centers to be designed with sustainability as a core requirement, not an afterthought. Through Green Globes, data centers build a strict environmental and operational standards, including rewarding facilities that minimize or even eliminate water use through advanced cooling technologies. By pushing facilities to improve energy efficiency and by thwarting buildings forward to the use of lower carbon and renewable energy sources. We also ingrain a third-party engineer or architect in the certification process so that they can call out ways to make these buildings even more sustainable and resilient as a whole. And these technical requirements are making a dramatic difference.

We are now listed as a requirement for data center development in Michigan, Illinois, Arizona, Minnesota, and Washington State, and currently Green Globes is listed as a requirement in bills in Colorado, Wisconsin, and Virginia that are moving through committee this legislative session. Existing data centers that adhere to our certification are in the 99th percentile in water savings, and newly constructed data centers reduce water usage by up to 49 percent through Green Globes.

Data centers are responsible not just for AI but for emergency services, online gaming, social media, emails, online learning, telemedicine, video streaming, card payments, and even your GPS navigation. Data centers are at the heart of our digital lives. They are always on, and growing energy demands can have a significant environmental impact if not designed, constructed, and operated with sustainability in mind. Green Globes hold these more accountable while supporting the vital growth that they offer, and we rely on these facilities day to day, so we need to be mindful in the Nevada market to make sure that third-party certification, such as Green Globes, is ingrained in local statute so that we can hold them accountable and move the state towards sustainability as a whole.

With that, I would like to pause and see if anyone has any questions today, but we are really appreciative of your time, and thank you for the opportunity for allowing us to highlight this.

Chair Anderson:

Thank you. Let me see if there are any questions. It is incredibly important information. I do not want you to think that we are not listening to it. I am not seeing any questions, however, coming forward. Thank you so much for giving us so much time and this information. I am sure we will probably be talking with you in the future.

Ms. Bowers:

Thank you.

Ms. Benesh:

Thank you so much.

Chair Anderson:

Thank you.

AGENDA ITEM XII—POLICY CONSIDERATIONS FOR ADDRESSING ENVIRONMENTAL AND CULTURAL IMPACTS

Chair Anderson:

We have made it to our final discussion agenda item and the last few presentations for the day, which focus on policy recommendation to addressing environmental and cultural impacts. First up, we will hear from Western Resources Advocates who I believe will be presenting in Las Vegas. There she comes. So, whenever you are ready, you may introduce yourself and begin. Thank you for being here, and for staying with us the entire day.

A. PRESENTATION BY WATER RESOURCE ADVOCATES

Stacy Tellinghuisen, Deputy Director of Policy Development, Western Resource Advocates (WRA) Clean Energy Program:

Thank you. Good afternoon, Chair Anderson and Chair Watts, and members of the Committee. I hope you can see the presentation online okay now. ([Agenda Item XII A](#)) Appreciate the opportunity to be here today and to speak with you all, and I thank you for taking a full day, almost a full day, at least, to attend to this really critical issue for Nevada.

Western Resource Advocates is a nonprofit conservation organization. We work across the interior west in Nevada and other states. Our Clean Energy Program works to advance clean energy and climate policies. We also have healthy rivers and western lands programs, and data centers really overlap many of the issues that all of our programs work on. I have been engaged across the region, including testifying in four out of the last five last Integrated Resource Plans for NV Energy. My presentation today will focus on some of the energy impacts of data centers.

Western Resource Advocates' interest in data centers kind of falls into three different buckets. First is the potential energy demands of the data centers. In NV Energy service territory, we are seeing forecasts that energy demands could double by 2035. That is truly staggering. We are also concerned about the water impacts of data centers. As we have heard throughout today, it is actually quite uncertain depending on the cooling technology. And finally, we are concerned about the cascading impacts on consumers, particularly on energy affordability and the risk that consumers could face.

I will start with the water, and recognizing that we have heard a lot on water today, I will be fairly quick on this, but again, you know, the water demands are quite uncertain because it depends on the cooling technology that is employed by the data center, and it also depends on the type of energy generation facility that is used to power the data center. There are key trade-offs in water use. Air-cooled systems use more energy but less water at the site of the data center, whereas, water-cooled data centers use less energy and more water on site. And I think it is important to clarify "on site" because there could be these off-site impacts depending on the power generation that is used to power the data center, and as we have heard earlier today, renewable sources of energy generally are much more water efficient than fossil fuel resources. I think one of the key recommendations that WRA has as it relates to water is to improve the transparency. Today, we do not have good reporting on the water used by different types of data centers or even the cooling technology that is used by many of them.

Next, I would like to turn to energy demands. I think when we look at these energy demands, they are truly staggering, and they have also emerged over a very short period of time. I will walk through the graph on the right-hand side of my slide—and sorry for having graphs late in the afternoon—but this graph just shows NV Energy's historic and forecast energy demands. On the Y axis is energy in gigawatt hours, and the X axis is time, and the blue line is historic energy demands for NV Energy between 2014 and 2024. You can see it is roughly flat. The bright green line going out into the future with NV Energy's energy forecast as of 2022, and you can see a slight uptick in energy demands. The yellow line is the energy demand forecast as of 2024 in NV Energy's 2024 Integrated Resource Plan. And then the red line is a forecast that came out of NV Energy's Energy Supply Plan update that was published just last fall. And so, just in the span of three years, we are just seeing a dramatic shift in the energy demands that are forecast by the utility. Under this sort of red line forecast, the most recent forecast, which I think is likely a preview of what we will see in NV Energy's IRP that will be filed in April, the utility forecast that its demands could double by 2035. That, you know, I think it should make all of us pause for a moment because it is truly staggering. And I think what we are concerned about is how this translates into additional greenhouse gas emissions. So, in the 2024 IRP, when we saw this uptick in demand, we saw that renewable energy generation generally remained flat in the utilities forecast, and they started dispatching their existing gas plants much more. It resulted in about three million additional tons of emissions from the utility system in 2030. We do not yet know what this will translate to in terms of emissions from the utility system under the 2026 IRP. That is what we will find out in about a month, but I think that that gets to the core of our concern.

The vast majority of these new energy demands are indeed driven by data centers. So, this graph just shows who is driving, which sectors are driving new demands for NV Energy, and the big blue wedge is large commercial and industrial customers. There is a little wedge for green that is residential customers, and a little purple wedge that is other sectors. Large commercial and industrial is not exclusively data centers, but over 80 percent of the new demand, based on the initial data that we have received, over 80 percent of the new demand is for data centers. And so, that is really what is driving these new energy demands and potentially new additional emissions.

Just to underscore the magnitude of this, NV Energy's current summer peak is about 8.5 gigawatts. There is pending system study or interconnection requests of roughly 25 gigawatts that would quadruple the size of NV Energy system, and my understanding from presentations earlier today, is that five to six gigawatts have signed interconnection agreements. I think that the size of that magnitude is important to consider because we know that not all of those loads will materialize. We know that a hefty portion are probably speculative because these data centers put their names into the queues in multiple different utility systems at once, as they are working to figure out where the most economic location is, where they can line up all of the other pieces of the puzzle that they need to actually bring their data center to fruition.

And that brings me to the third bucket of concerns and issues that WRA sees, and that is the impact on consumers. And particularly the risk that consumers face and the risk that some of these costs could be placed on consumers. I think the biggest area that we have heard about today is that utilities build additional generation and transmission and distribution capacity, and the data center load does not materialize or does not come at the scale expected, and that could be because the data center decides to locate in a different jurisdiction. We have improvements in the energy efficiency of the chips so that the data centers do not use as much energy as they forecast, or we find that there is less demand for AI because customers today, for the large part, get it for free, and once they have to start paying, that may change the actual demand for it. There are other potential costs and risks. I think one of the key ones is making sure that cost-to-serve data centers are accurately assigned and are not subsidized by residential and commercial customers.

And so, that leads me to policy solutions. Again, these kind of fall into the three buckets that I have addressed today. First, on energy and climate. We think it is essential that data centers are powered with clean energy. We heard from Google today about the Clean Transition Tariff, which is, I think, an exciting model. I think there is an opportunity to ensure that all data centers follow that model. Today, most of them are not. To my knowledge, Google is the only data center that has clean resources acquired through the Clean Transition Tariff, and so, Legislators could look at how to either incentivize or regulate to ensure that these data centers are connected with clean resources.

The second key bucket that I will highlight is consumer protection. I think these are the contract and tariff provisions and rate-making reforms that we have heard about today. I would say just that the "devil's in the details" for all of these things, of course. You know, it depends if it is a 10-year contract that the data center's signing up for or a 15-year contract or a 5-year contract. That has really different implications for whether other ratepayers bear some risks and costs.

And then finally on water. As I mentioned, transparent water use accounting; water use efficiency performance metrics are some of our key recommendations. I will just say on energy and climate, I think there is an opportunity here. What we have heard from utilities is that these data center companies that have pretty big pocketbooks also have an appetite

for risk that utilities often do not have, and so they may be willing to invest in clean energy technologies like enhanced geothermal that helps us to really advance the ball on clean energy. I think that is an opportunity that we can look towards.

I will just wrap up quickly here and just note several pieces of legislation. One in Colorado that is currently pending. Oregon and Minnesota passed legislation last year. These have the core components that I just mentioned around protecting our energy and climate laws, protecting consumers, and protecting water resources.

Finally, we will flag that in the absence of policy, what you could see is Project Jupiter, which is the Stargate Open AI project in southern New Mexico, which will have three to four gigawatts of behind-the-meter gas with attendant staggering levels of greenhouse gas emissions, criteria pollution, and water demands.

Thank you again. I appreciate your attention late in the day. Happy to answer any questions.

Chair Anderson:

Thank you so much, and you went through that so quickly and so efficiently. I really appreciate it as well as giving us all this information. I do have a few questions first from Assemblymember DeLong.

Assemblymember DeLong:

Thank you, Chair. Thank you very much for the presentation. I just want to make sure I heard you correctly. Were you recommending that the data centers, or maybe any other large load users, be responsible for ensuring that the power they get is from renewable or green sources? Or were you saying it still needs to be on the utility to provide that power?

Ms. Tellinghuisen:

Thank you, Assemblymember DeLong. You know, I think what we have seen primarily is utilities supplying power to data centers, not policies that direct data centers to self-supply with clean energy. I think data centers generally probably prefer to be connected to the utility grid for the resiliency that it provides. You know, at a certain level, I think we would likely be agnostic as to whether it is clean energy that is provided by the utility or provided behind the meter by the data center, but knowing that data centers prefer that resiliency that a utility offers, I think that that is the more likely path. The model that you heard Google discuss earlier today, I think provides a really good model. Google has essentially—I think they describe it as a sleeved PPA [Power Purchase Agreement]—where Google worked with Fervo to develop the enhanced geothermal project, but NV Energy ultimately provides the contracts with Fervo and provides the energy to Google as a customer of the utility. I think our recommendation is really just ensuring that these data center loads are met with clean energy.

Assemblymember DeLong:

Quick follow-up? Is it your belief that even if it is behind the meter, that needs to be a criteria?

Ms. Tellinghuisen:

I think it is critical that these data centers are powered with clean energy. Of course, behind the meter . . . If it is exclusively behind the meter, I think that becomes more challenging if a data center needs reliable power around the clock without developing sort of either a project like an enhanced geothermal project or a lot of battery storage. But I think that the risk of allowing data centers to develop gas generation behind the meter is a real risk, both because it undercuts the state's broader clean energy goals, and it also contributes to criteria pollution that affects local communities as well. That is the example that I provided from southern New Mexico where I think that the local community is rightfully concerned about the number of gas generators that will be going in that are quote, unquote, "behind the meter," though I think it is still TBD [to be determined] whether that particular data center is actually connected to the grid. I hope that answers your question.

Assemblymember DeLong:

Thank you for that response. Thank you, Chair.

Chair Anderson:

Thank you. Chair Watts.

Chair Watts:

Thank you, and I will follow up on that line of questioning from my colleague. My understanding, then, is essentially, and I mean we have seen, just within the last couple of weeks, some headlines about some of these projections that have been discussed today, throwing us off of our ability to meet our current statutory and constitutional renewable portfolio standard. If things continued as they are right now, we are on track to meet that, but some of these massive projections in new energy needs are now showing that we would not be able to meet that. And so, are you essentially saying that we need some policy guardrails, especially since we are now hearing some of these warnings even coming from NV Energy themselves to ensure that—whether it is through the Clean Transition Tariff, whether it is through the utility—that enough clean energy is being brought online to ensure that we are on track with the other established public policy that the state has?

Ms. Tellinghuisen:

Thank you, Chair Watts. I think that is right, and that is our key recommendation. I will just share this legislation that WRA has been working on in Colorado. Senate Bill 102 has provisions that require a data center to work with the utility to ensure it is supplied with clean energy or if it is self-supplying that it is meeting the same level of rigor that we expect of our utilities. And so, I think that is critical with this sort of level of load growth, we may need these extra guidelines or bounds or regulations to ensure that these data centers are not harming or sacrificing the state's clean energy goals.

Chair Watts:

Thank you, I appreciate that, and I know that other states are in session right now, and I am sure that is all being talked through. I think that would be helpful for us, and I really appreciate that language that you used around matching the rigor that the utility already has. To me, that is a level playing field, so to speak.

I think my only other question, again, this is more of a follow-up item. I know that you have done some of this research, but again, as you are seeing different pieces of policy coming forward, as you are seeing some of these tariffs being adopted and developed in other states, as I had asked other presenters, I would be interested in some of your thoughts on best practices on the ratepayer side—the ratepayer protection side of what should be included in those tariffs, in those contracts, et cetera.

Ms. Tellinghuisen:

Thank you, Chair Watts. I would be happy to follow up with more detail, but you know, I think that there are some pretty standard provisions like contract terms, minimum payments, exit penalties. One of the pieces I think that we are also interested in—those are features of tariffs or contracts—but another piece that we are interested in is just looking at ratemaking and making sure that rates are fairly allocating costs between residential and small commercial and these data center loads. And I think some of this gets pretty wonky quickly, but some of the traditional ratemaking practices that maybe just look at the top four hours of demand of the year, those often unfairly target residential customers compared to, for example, these data center customers that have very high loads, but in every hour of the year. And so, there may be some shifts in ratemaking where we want to look at what cost does the data center impose on the system in every hour of the year, not just those four peak hours.

Chair Watts:

Thank you. Thank you, Chair.

Chair Anderson:

Thank you, and thank you so much for the presentation and for being with us all day. I do not see any further questions.

B. PRESENTATION BY PYRAMID LAKE PAIUTE TRIBE

Chair Anderson:

All right, let us go on to our almost last presenter. We will be staying on Agenda Item X [sic]. We will next hear from Chairman Steven Wadsworth of the Pyramid Lake Paiute Tribe to share about impacts to tribal areas. Thank you for staying with us the entire day. I know I saw you this morning. It is good to see you again. It has been a long day, and we appreciate you being here. You may begin whenever you are ready.

Steven Wadsworth, Chairman, Pyramid Lake Paiute Tribe:

Oh, thank you, Chair Anderson. Thank you, Chair Watts down there in Vegas. You know, there has been a lot said throughout the day, and I want to make some clarifications. I even have some hard numbers for you guys, because I know there has been some questions asked, and nobody has been able to provide anything. But really, what we are talking about here is of course what the Tribe's number one concern is going to be is water quality. And when it comes to water quality, you have heard many different things, especially when it comes to effluent and what that would mean. If you are not aware, the Tahoe Reno Industrial Complex did already put an effluent pipeline out that way. And the Tribe had to follow suit because that meant that less water was being put into the river, which meant of course, less water to Pyramid Lake. They of course have negotiated with the Tribe and have agreed to put more fresh water, and as we would like to say, "keep the river whole." I

guess the question would be, depending on the types of systems and data centers that would be in the area, how much more effluent they would possibly take and how much more water that has got to be reallocated elsewhere up the river is going to impact our already overgrown population area.

And of course, if they are using nonevaporative cooling, and I have already heard ten acre-feet of water mentioned for some of these data centers, that of course brings up the problem of energy. And if anybody has taken a look at all of our energy spikes in the summer, I do not know about you guys here in the big city, but out in the rural communities, we are the ones that see the impact with our rolling brownouts and constant interruptions to our electrical grid, especially during peak times during the summer. And so, what is everybody trying to do now? They are trying to bring in more energy, which of course, is going to commit to more greenhouse gasses. Great Basin Natural Gas is already expanding their pipeline through Nevada, through our BLM [Bureau of Land Management] lands to build another energy plant near Fernley that is just going to increase all of that greenhouse gas and of course decrease air quality.

Some of the other areas that we are looking at are other different sources of power generation, battery storage power, solar projects. But like everything else, just if you remember Physics 101, for every action there is an equal and opposite reaction. So, we have not seen a lot of these different, I guess, negatives. You know, there has been some negatives, like through geothermal. If you guys were not made aware of an incident that happened in California where they sprung a leak in one of their geothermal plants with some of their, I believe, it was their cleaning supplies through their pipes sprung a leak and it saturated the ground with butane. And if you do not know what butane is, that is what is in a lighter. So again, it is just one of those other things.

Some of the other things I think that have been mentioned is just, you know, from my background. I did IT [information technology] for ten years before I became Chairman, and so I kept a lot of track on a lot of these trends, and it is more of a national problem, worldwide problem where these data center demands are actually increasing the prices of just a general, everyday computer for all of our consumers, which is a problem because inflation, that seems to be well above the average for inflation in this country.

I think for policy, it is my opinion and the Tribe's opinion policy needs to get up to today's standard. I am very encouraged by what I just heard about the data centers, what they are doing down in Clark County, because that should be the policy in all of Nevada so that we make sure that that water use stays at the bare minimum, which again, I had already heard ten acre-feet. You know, cause so many of our laws in this state really have not changed since our inception in 1864, and we need to bring these laws from 1864 to 2026.

Some of the hard numbers that I had mentioned earlier. Somebody had mentioned that if they were using evaporative cooling, it could be up to 90,000 acre-feet a year. If you want that hard number, 90,000 acre-feet a year is almost three-quarters of what came into Pyramid Lake in 2021. In 2021, only 117,000 acre-feet of water made it to Pyramid Lake. So again, almost three-quarters of water; that is the potential impact you could see without some of these laws that we are going to desperately need.

I think I will really just wrap it up. You know, there is something that we talk about for all the tribes and that is these lands where they want to put everything, all the expansion, BLM lands. These are the traditional homelands of our people of the Paiute, of the Washoe, of the Shoshone. So, it also needs to be made clear whether through policy, but that they need to work with these tribes because these are our traditional lands. We were here before

anybody else was, and we will be here when everybody decides to hit the stars. So that, to me, is probably very critical. Of course, I do not speak for the other tribes. I only speak for Pyramid Lake, but they have to be brought to the table by whoever is proposing a data center by the state because they are the ones that are ultimately going to be impacted because these are our areas that some members may go to pray. Others depending on where they are at, maybe the Pine Nut Hills, whether they are in central Nevada, down on the southwestern border.

With that, I will just say that as a fellow elected person like the rest of you, we need to stop thinking beyond our term limits and how long we are here for these terms, because what we decide here and what happens at the Legislature is going to impact well beyond us. Thank you.

Chair Anderson:

Thank you. Before I open it up for questions, I do have one very quickly. You brought up about making sure that the tribal nations are brought into those conversations. What has been the process so far? Has it been more of a, "I am going to tell you this is happening" or has it been numerous meetings, or have there have been memorandums of agreements? What has been the process so far with the discussions—from your experience?

Chairman Wadsworth:

From just about everything you had just mentioned, we have had meetings. A lot of times it is really an email with no follow-up, which has been the problem in for many of us tribes in the past. Where there is like, we sent you an email, and there was no follow-up. You know, maybe the email did not get there. Certified letters of course are going to work. The government is probably the only organization that still uses the postal service, but that is probably going to be the best way, so at least everybody has proof that, yes, we did try to contact the tribes, and somebody did pick up a letter.

Chair Anderson:

Thank you so much. Let me see if there are any other questions. Let me look up something really quickly. Seeing none, again, thank you so much for being here today. I know you and I have had other conversations as well, so greatly appreciate you being here. I have a feeling we will probably be talking a lot more between now and the session.

Chairman Wadsworth:

Thank you.

Chair Anderson:

Thank you.

C. PRESENTATION BY TOIYABE CHAPTER, SIERRA CLUB

Chair Anderson:

And now we have our final presentation today. We will be hearing from the Sierra Club. Again, thank you, Ms. Tanager, for being here and for your patience. I know that you were here this morning, and you were very kind to request to be one of the last presenters today, so you may proceed whenever you are ready. Thank you.

Olivia Tanager, Chapter Director, Toiyabe Chapter, Sierra Club:

Thank you, Chair, and members of the Committee. As you all probably know, the Sierra Club, Toiyabe Chapter is the largest grassroots environmental organization in the State of Nevada. We represent 40,000 members and supporters across our state. I will note, I know we are at the end of a very long day, I would encourage you all when you are decompressing tonight, maybe consider watching the film "Eddington." I think you will have a better appreciation for the conversations we have been having today.

I want to start with the lay of the land and talk about some of the considerations that my organization has had as we have pursued this conversation over the last couple of years now. ([Agenda Item XII C](#)) The Sierra Club, Toiyabe Chapter in a lot of ways has been the leading organization advocating for data center accountability and data center standards in the State of Nevada. We have been involved in conversations around local ordinance development. We have been involved in conversations at the regulatory level. Now we are having conversations with you all about what appropriate state policy and state regulation would look like on this issue. We have been involved at every level, every way that this issue impacts communities across Nevada, we have been having those conversations. We have been having town halls with folks across the state. And as you heard from public comment this morning, and as I am sure you all are hearing from your constituents, this is something that is at top of mind for a lot of folks right now in 2026, and certainly we do not expect it to slow down going into 2027.

And so earlier, Assemblymember Kasama asked why data centers are coming to Nevada. We are a dry state. Southern Nevada is quite hot, notoriously, and a couple of folks have tried to answer that question, but ultimately, I did want to point out, as you heard, we do have relatively cheap energy, especially compared to our neighbors in California. We have fiber optic cables that data centers really want to hook into, particularly in northern Nevada. We have proximity to large markets including Silicon Valley. We have very strong tax incentives and tax breaks for folks to come here as well as perceived land availability. And so, my point in talking about all of that is that data centers want to come to Nevada, and so regulating data centers appropriately is not necessarily going to stall economic development or growth. Corporations want to come here. They have a lot of reasons to want to come here, and so we need to make sure that the costs and issues associated with data centers are not unduly passed on to the public.

I will be talking about affordability and impact on utility bills, and I will try not to be duplicative. Talk a little bit about climate impacts and some things that I do not think have been pointed out yet today. And then I will talk about our impact, the impact on natural resources, including water quantity and quality as well as air quality. Then I do want to point out, sorry, on this slide, so while I will not be talking about the economic impacts today, I understand that is not the purview of these Committees and that conversation would be better held with revenue folks, we do believe that if profits are private, meaning that because we have such large tax abatements in the State of Nevada for data centers, the risks cannot be public.

Okay, so cost shifting—how and why? We have heard a lot about this today, but just wanted to explain it in a way that made sense to me when it was first explained to me and how I have come to understand it, because I think it might be helpful for you all as you are legislating on this issue. So there was a report that Harvard released last year called

Extracting Profits from the Public, which found that utility rate structures can shift the cost of serving data centers onto the general public. In that report, it specifically notes that cost shifting is something that could happen in Nevada. We currently do not have any rules or regulations on the books that explicitly prohibit cost shifting in the state.

Nevada, like most states, uses a regulated monopoly utility model where utilities build infrastructure and then recover costs from all ratepayers through bills. And utilities build infrastructure for data centers. Data centers require new power plants, new transmission lines, new substations, and utilities really are incentivized to build. We all know that they earn profits on capital investments. Traditional rate making spreads infrastructure and energy generation costs across all customers, and so, historically, rates have been set because the growth associated with industry and residential load growth has been approximately the same, but data centers really blow that assumption totally out of the water.

So, the model made sense when growth was gradual, when growth was broad-based, but with data centers, costs for infrastructure and energy generation serving a handful of corporate customers can still be rolled into rates paid by everybody unless you have explicit and transparent laws on the books preventing that. The Harvard report found that utilities often offer special discounted rates or contracts to attract data centers. And again, that is why that transparency piece is so critical. There is also the risk of stranded costs if a data center scales back or if technology changes. Nevada could be left with unused infrastructure still paid for by ratepayers, which is why that stranded infrastructure conversation is really critical to the cost shifting conversation.

And so that leads me to talking about climate, including the CTT, that you have heard a lot about today. We have also heard about our renewable portfolio standards. NV Energy has publicly stated that we will not be able to meet our renewable portfolio standards, or RPS, by 2030 because of the demand for data centers. This body worked really hard on the RPS and the ballot measure to support RPS, one broad bipartisan support up and down the state. And unfortunately, we do not have enforceable mechanisms, and there are not clear penalties for not adhering to the RPS. So, in order to better protect ratepayers, in order to better protect folks in the State of Nevada, we will need to get creative in the way in which we are going about that.

The CTT that you heard about earlier from Google and others, Sierra Club and our attorneys worked on the CTT during the regulatory process. And so, while it is not a silver bullet, I want to make that clear to everybody—the CTT is not a silver bullet for our energy problems. It is not a silver bullet for protecting folks from cost shifting, but it does give companies options for opting into the CTT, and we would certainly support efforts to further incentivize the CTT in Nevada. We know that the system, our energy system, is being pushed towards large capital-intensive generation buildout, which is often gas. We know that the utility is looking at building out three gigawatts of new gas in Nevada, which is certainly concerning. And under certain demand scenarios, with fuel price exposure layered on top, really this creates a double risk of stranded capital if the load does not show up or ongoing fuel cost volatility if it does. And so, when having conversations about the climate piece, the affordability piece, the stranded infrastructure and the way in which we are phasing in building infrastructure is really important both for not overbuilding fossil fuel generation and not overbuilding infrastructure that everybody is going to have to continue to pay for.

We have also heard a lot today, and I really appreciate the research that our friends at DRI [Desert Research Institute] are doing about water use, particularly about the water use associated with energy generation, because that is something that we were struggling to get concrete numbers on for a long time, and so that information is really important for us to understand, that the way in which we are powering data centers is really important in the water conversation.

It is our Organization's belief that evaporative cooling is a poor use of our limited water resources. We just heard the Chairman speak to that as well. It is a permanent, often localized loss of water, so a consumptive use in a state that does not have a lot of water to consume. Forthcoming development of data centers should not include evaporative cooling technologies, and a lot of data centers are moving away from that anyway, but the fear is that if we continue to allow these things, we are going to attract what we are referring to as "dollar store" data centers. So, the lowest quality data centers, the folks who are poor actors in communities, but it is important to consider that restricting evaporative cooling does not solve the water issue with this industry. And so, we really appreciate the way that SNWA has gone about restricting evaporative cooling. We believe that is the right thing to do, and we should be doing it up and down the state, but the energy generation piece continues to be a really large factor in the water conversation around this industry.

I did want to briefly note on the water quality issues. One thing that has been raised in other states is the concern around fire suppression. So, data centers, because the technology runs very hot, requires a very specific type of fire suppression. And so, should there be a fire that needs to be put out, it does have very specific chemicals, some of the forever chemicals that you all have discussed in legislation before, including PFAS [per- and polyfluoroalkyl substances], and so, that is an important part of this conversation, too, is mitigating against, again, unique problems associated with this industry.

I wanted to spend a little bit of time talking about air quality as well, because I think that has been a missing piece of the conversation today. I wanted to give a couple of concrete examples. The Amazon Data Center, at the TRIC [Tahoe Reno Industrial Center], this project would use grid power, but it would have 358 diesel-powered backup generators. So, a lot of data centers that are coming to Nevada, because of the fear of brownouts or blackouts, because they have to run 24/7 to be able to power their load and deliver the things that they promised their customers they are going to deliver, they are building out massive amounts of backup diesel generators. And so, we have the Amazon Data Center with almost 400 diesel-powered backup generators. The Vantage Data Center near Reno would include 88 diesel backup generators, the RNO 1 Data Center, again, east of Sparks, would include a total of 126 diesel-powered generators, and not all backup diesel generators are the same. So, the EPA [Environmental Protection Agency] tiers the quality of backup generators, and a lot of what we are seeing is lower-tiered backup generators. So, when those generators come on, they are going to contribute a lot to a state that already struggles with poor air quality, and therefore, have impacts on public health and the air you and I are breathing as well. So, when we are looking at adequately regulating data centers, we believe that backup diesel generators and the air quality conversation is an essential piece of the conversation that we do not want to be left forgotten.

In conclusion, we believe that you cannot claim to be a company of the future while draining the resources of the present. Again, we believe that if the profits are private, the risks cannot be public. We believe that Nevada can lead, but only if we stop racing to the bottom and start setting the standard. We strongly support developing a large load tariff, and I am

happy to go into the elements we see as necessary there. Our friends at WRA went into a couple of those. Restrictions on evaporative cooling up and down the state, we think, are really critical, regulating backup diesel generators and stronger requirements for preventing stranded infrastructure and particularly stranded gas infrastructure.

Thank you and hopefully I did not speak too fast, but I am available for questions.

Chair Anderson:

You did an excellent job of getting all of that within the ten minutes. I do have a few questions it looks like. We have got Assemblymember DeLong.

Assemblymember DeLong:

Well thank you, Chair. Thank you very much for the presentation. I wanted to focus in on your discussion on air quality considerations. You had mentioned that data centers should have restrictions on the backup generators. Since Nevada, the state, as well as Washoe and Clark County, both have approved SIPs [State Implementation Plan] from EPA, so we are in compliance with the Clean Air Act, are you suggesting that we should start implementing industry-specific air quality standards? Looking at one industry, should be regulated differently than another as it relates to the Clean Air Act?

Ms. Tanager:

Thank you for the question, Assemblymember. So, because this load growth is coming so quickly and in very localized areas, like we see the Tahoe Reno Industrial Center, we know there is going to be a lot of development in Lyon County. We do believe that there needs to be more specific focus on the way in which we are regulating these backup diesel generators. And so, what we have seen in other states, including Illinois, is there has been some legislation to look at that. Again, like these backup diesel generators we are seeing can be the size of semi-trucks, so they can be really large. They are emitting a lot of air pollution. And so, we are asking, and we have submitted public comments to this effect, is different projects have gone through the permitting process with air quality permits for data centers to be using Tier 4 backup generators instead of what we are seeing with a lot of data centers is the Tier 2 in Nevada. And the concern, and we have had this concern broadly, is the death by 1,000 cuts of data centers. And so if you have a bunch of different data centers, you know, a couple 100 backup diesel generators here, a couple 100 backup diesel generators there, at the end of the day, you might see thousands of backup diesel generators in an area that might experience a brownout or a blackout at a similar time, and all of those coming online at the same time would make for very poor air quality in a localized area.

Assemblymember DeLong:

Follow-up, Chair?

Chair Anderson:

Yes.

Assemblymember DeLong:

I hear what you are saying. So, just as an example, you are saying if a casino has backup generators, it gets one set of regulatory standards, but a data center has a different set.

Ms. Tanager:

To your question, Assemblymember, I would love to see every backup diesel generator in the state be the highest quality backup diesel generator regardless of what industry it is being used for. It is just something that we are seeing more and more air quality permits coming through for data centers, in particular, but my organization has always been concerned about the air quality impacts of backup diesel generators regardless of the industry.

Assemblymember DeLong:

Thank you. Thank you, Chair.

Chair Anderson:

Thank you for that clarification. Next up, Chairman Watts.

Chair Watts:

Thank you, Chair. Thank you for the presentation. As I have asked others, would you mind sharing some of your thoughts on best practices for large load tariffs and ratepayer protections?

Ms. Tanager:

Absolutely. Thank you for the question. We believe that some of the new best practices in large load tariffs include a choice for renewable energy, again, because of the conversations that we have had with large loads being particular for cost shifting and for the fuel cost exposure. So, we believe that new large load tariffs should have a clean energy choice. We believe that new large load tariffs should give access to the aggregate load of large customers, or their parent companies, to ensure that everybody is falling into that LLT [large load tariff]. There has been some discussion in various states about what the appropriate threshold is for a large load tariff. It is my belief that that should be 20 megawatts and up. Again, you are seeing some states that are regulating at 25, some states that are regulating at 30, some states that are regulating at 50, but the 20 megawatts and up really captures the true large loads, particularly in Nevada, and would not capture smaller businesses. We believe that proposed large load tariffs should now include provisions requiring the utility to reassess their rate allocation schemes, as well, so a rate adjustment mechanism, the marginal cost, so looking to make sure that new large loads pay the entire incremental cost to service their requirements. And we want to make sure that there is an exit fee as well, so large load tariffs require that if customers are going to substantially reduce their use, or leave altogether, after we have built out that energy generation or infrastructure, they still have to make the utility whole and therefore ensure that those costs are not passed on to ratepayers. I believe our friends at WRA went into some of the long-term contracts as well. That is a pretty important component for us is having long-term large load tariffs. So, in that 15- to 20-year time frame. Thank you.

Chair Watts:

Thank you, Chair.

Chair Anderson:

Thank you. Any further questions? Seeing none, thank you so much for all of the discussion, the preparing, and then also for all the other meetings that you have been engaged in over the last few weeks, and I have a feeling in the next future weeks.

Ms. Tanager:

Indeed. Thank you, Chair.

AGENDA ITEM XIII—PUBLIC COMMENT

Chair Anderson:

All right, we have arrived at the last item on our agenda, which is our second period of public comment. And again, to call in, please dial (888) 475-4499. When prompted, please enter meeting ID 876 1103 2529 and then press the pound key. And if prompted for a participating ID, please press pound again. Please remember to clearly state and spell your name before you begin. Each individual will have two minutes. I am actually going to start on AVH this time, but if you are in Carson, come on down. If you are in Vegas, come on down to the table. AVH, do we have anyone on the phone who wishes to make public comment?

AVH:

Thank you, Chair. To provide public comment, please press *9 now to take your place in the queue.

Berry Johnston, Resident, Las Vegas, Nevada:

Hi. Chair, members of the Committee, you are reviewing energy load infrastructure and rates tied to data center growth today. Then evaluate the numbers, not the narrative or the ideology. Nevada's current integrated resource planning direction leans heavily, leans heavily on solar and storage capacity, storage expansion. That stack has three structural cost guidelines. Generation cost solar, utility scale solar in the southwest typically 30 to 40 megawatt hour LCOE [levelized cost of energy] on paper. Storage requirements to make the usable daylight must add batteries. Forty-eight lithium storage pushes effectively delivered cost of roughly 80 to 40 megawatts in the real world. System costs, transmission expansion, remote solar fields, grid balancing ancillary services, capacity overbuild. You will install three to five times nameplate to meet peak capacity when it includes system level costs, intermediate heavy grid tends towards 120 to 200 megawatts effectively delivering cost per firm power. So now, compare that with advanced nuclear closed loop, nuclear advanced reactors, SMR [small modular reactors] fast reactors currently first wave builds 90 to 140 megawatt hour, 90 to 100, \$140 per megawatt hour scaled fleet and standardized builds tends toward 70 to 100 megawatt hours. Key difference in firm dispatch 24/7 power, 90 percent capacity factor, no storage layer, no overbuild multiplier, no solar dot drop off curve. Now apply that to data center demand. So, we will be looking at needing tens of gigawatts of power plus you guys are trying to cripple our gas production, because you want us to drive electric cars. It is impossible to do that with solar plus storage. We have to go to nuclear. Now, nobody is talking about covering the state parking lots and the government buildings with solar so that we can fix the grid and start making it more dependable. You are talking about wiping out 1,000-year yuccas . . .

Chair Anderson:

Sir, if you could start wrapping up your statements, you are almost to the end of your two minutes.

Mr. Johnston:

After the state line, after state after the state line if reflector has vaporized . . .

Chair Anderson:

Thank you, sir. Next caller please.

Manny Becerra, Member of the Public:

Good afternoon. Chair, Vice Chair, and members of the Committee. Thank you for convening this session. I am speaking in my personal capacity, though for context, I do serve as a Reno Planning Commissioner and Cofounder of the Truckee Meadows Data Center Policy Consortium, a cross-sector coalition whose stakeholders and participants include several organizations and individuals you have heard from today from Desert Research Institute, Western Resource Advocates, TMRPA, residents, businesses, and community advocates amongst others. What you have heard today points to something pretty significant—a consensus forming across sectors that rarely speak with one voice. So, the question is no longer whether Nevada needs standards, it is whether the state will seize this moment to give every community from Reno to Lincoln County, from Lyon to Esmeralda, and beyond, the tools to make sound decisions about high energy land uses with data centers. The scale demands it. Nearly three times the capacity of Hoover Dam in requested load, 90 plus percent concentrated in northern Nevada, rural utilities fielding requests for 9 to 70 times their peak load. In the Truckee Meadows, approvals began to move forward in late 2024 before appropriate zoning standards existed, and that gap has not been fully closed, though today's session gives me hope. Every Nevada community deserves to make these trade-offs deliberately, if at all, and not by default.

Today's presentations did not just show us the problem; they showed us the path forward and that industry will rise to meet it when we set the bar. A dry coal facility in Las Vegas saved 200 million gallons of water a year. That should be the statewide standard. Google brought clean geothermal power to the Nevada grid bearing the cost itself, with ratepayers fully protected. These are not outliers; they are replicable models and proof that responsible operators are ready and willing. Nevada offers data centers a 75 percent property tax abatement, a significant public investment that should come with a public return tied to verified clean energy performance. With NV Energy already at risk of missing Nevada's 2030 constitutional clean energy benchmark, a renewable energy standard for large loads is not aspirational.

Chair Anderson:

Sir, can you start wrapping up your comments, please?

Mr. Becerra:

Yes ma'am. Nevada has the research, the coalition, and the moment a written statement with specific recommendations is submitted for the record and your consideration, I appreciate and respect the work before you and all of us. Thank you so much, everyone.

Chair Anderson:

Thank you. Next caller please.

AVH:

Thank you, Chair. There are no additional public comment callers at this time.

Chair Anderson:

Thank you so much. Next, we will go to Las Vegas. You may begin when you are ready, sir.

Adam J.D. Martin, Member of the Public:

I am a strategic executive, entrepreneur, avid user of artificial intelligence, particularly, throughout this new revolution of agentic AI. And I guess I am one of the few members of the public left today as I look around the room, and I just want to put my thoughts out there that I think the only thing understated today was the demand that we are going to see in the future for these products. As a consumer of these technologies, I cannot even begin to think we are on the first page of what is the chapter of a very, very long book and where technology is headed. I think we need to take data centers very seriously. They are at the heart of national security, infrastructure for health care, and just about everything we do. And I think only very few members spoke to that today. Everything you do in your current life is predicated on that down to, you know, the one gentleman mentioned his oven today, his stove. There is going to be more and more of that. I know that because I have implemented AI at various layers of the technologies in my companies. I believe it affects all pillars of all businesses. And, yeah, I think we need to think bigger about this, and I would challenge everybody in the room and everybody listening to think much bigger. How are we getting our power? The closed loop cooling makes a lot of sense. But the right sizing of power generation, I think, is the large question here. I see small modular nuclear reactors as a potential solution for this, and again, if you understand the closed loop cooling of data centers, it is not a very hard gap. I am sure most of us are not nuclear experts in the room. It is not a large gap to bridge. To just understand how small modular reactors work, they use closed loop systems, they use very little water, and they can be continuously powered meeting the demands of what I believe we are going to see in the future with data centers and the development of especially agentic AI. Jefferson Wang is the CEO of Nvidia's, a \$4.2 or \$4 trillion company that just announced that he believes that we have reached general artificial intelligence . . .

Chair Anderson:

Thank you, sir. If you could start wrapping up your comments.

Mr. Martin:

Yeah, that is all. Thank you. Just challenge you to think big.

Chair Anderson:

Thank you. Anyone else in Vegas? Seeing none, we are now going to end up here in Carson City. Whoever would like to go first.

Will Adler, previously identified:

Thank you. Just to wrap up my comments from earlier, and to sort of, you know, have some closing comments on this subject. I do think that that gentleman was somewhat correct there that, you know, AI is driving this boom and the craze that is, what is coming next in this, this future demand curve, but what I am trying to convey to the Committee, and I think everyone heard today, is data centers are the now of Nevada. This is, this is what we are living and breathing today, but I do think this is the single most important topic in Nevada, but it is one we have to actually take head on and say what is coming here, what is the actual demand, and what is the economic benefits and the hardships in the environmental side, and we have to actually balance that together as a community. I represent Northern Nevada Development Authority. I work with EDawn [Economic Development Authority of Western Nevada] and a lot of the other generative, you know, sources of these data centers to actually come in to get applications. There is a large data set that is actually available but, you know, private to date. We do want, you know, to bring that forward to the Committee if there are questions to be answered. We were able to actually receive that data in its form. I will be able to get that to the Committee, but we want to actually benchmark the power demands, the water demands and sort of what is the curve for Nevada because we could actually see it coming. People bought the land, they have incentives, and they are sort of here, but the speculator crowd, I agree, is above and beyond that. There is this idea that Nevada will have 20 gigawatts. I do not think so, but I do think we need to embrace what is here and make sure it lands here the best way it can. And I think Rule 9 policies are helping with power. I think regional water conversations could go a long way when it comes to where infrastructure needs to be invested in, and the new guys coming in can help do that investment, too, but I think the park has gone a long way. The TRI Industrial Park, when embracing, you know, the demand curve that that traffic and everything else had, we demanded more from them, and I think that that policy can actually work with this new curve coming in. So, thank you so much, and thank you for holding this topic. It is the most important topic in Nevada. Thank you, guys.

Chair Anderson:

Thank you. Next speaker please.

Clay Mitchell, Member of the Public:

Chair, Committee, I am a Storey County Commissioner and also a trustee for the TRI-GID, but I am speaking for myself. There is much to say, but I want to focus mainly on one thing, and that is I want to strongly caution against a statewide, one-size-fits-all water policy. As Mr. Rotter mentioned earlier, water management is local, and each region has very different factors at play. Just as southern Nevada has adapted to its water conditions, so have we. And a prime example that has been mentioned, but I want to lay it out clearly. So, over a decade ago, the Reno Sparks sewer treatment plant needed an upgrade to meet nitrate standards on releases into the Truckee River. Some estimates put the cost of that upgrade at \$150 million or more, and that would have been borne by their ratepayers. The developer of the TRI Center had the foresight to dual plumb the core of the park with freshwater and purple pipes, so it was ready to receive that effluent water. And through a complex and innovative agreement, the TRI Center companies fronted approximately \$30 million to build a pipeline to divert that treated effluent from the river to be used instead for industrial purposes. Ultimately, Storey County pays for the pipeline to save these massive costs to Reno and Sparks through tax increment financing. Now, we also pay a rate for that effluent and are working to ramp up its usage at the TRI Center to keep the treated sewage out of the river. My point is this, an outright moratorium on water for cooling uses

would be counterproductive in our water quality efforts and would handcuff our water management professionals in their work to maintain water quality. I also want to affirm, reaffirm our commitment to keeping the Truckee River flows whole to our downstream neighbors, including the Pyramid Lake Paiute Tribe, and we are happy to work with them and our other neighbors to address concerns as they arise. Finally, while broad brush data and ideas can be informative, I would encourage this body to work closely with those like Ms. Shari Whalen who deal with data centers every day and have relevant current data that can properly inform policy decisions. Thank you.

Chair Anderson:

Thank you. I was just going to have to cut you off, so thank you so much.

Seeing no one else coming to the microphone, I would like to just—we will be concluding the meeting—but first I would like to thank all the members of our Committee, as well as our entire staff for Legislative Counsel Bureau, as well as our Legislative Police for all their work today. Thank you so much, and this meeting is adjourned.

The following written comments were submitted for the record and are included in a compilation of written public comments. ([Agenda Item XIII A](#)):

- Kevin Moran, Associate Vice President, Regional Affairs, Environmental Defense Fund;
- Haley J;
- Kaitlyn Parrish;
- Sandra Parris;
- Lauren Frick;
- Mauricia M.M. Baca, Nevada State Director, The Nature Conservancy;
- Shannon Lavender;
- Zoe Bray;
- Anneliese Murillo;
- Ricardo Rubalcaba-Paredes;
- Michael Hampton;
- Kelsey Hoffman;
- Unidentified public comment;
- Clark Watkins;
- Annie Trent;
- Kathryn Olson;
- Luke Rizzotto;
- Andrew;
- Donald Clark;
- Dayna Genio;
- Hawkeye;
- Kristine;
- Rachel (Lainey) Henderson;
- Schy;
- Linda Miller;
- Drew Willis;
- Tyler Maynard;
- Nicholas Rhea;
- Khazikani;
- Rosalie Miletich;
- Amanda Mulholland;

- Jenifer Anderson;
- Jamie Stetson;
- Alex Batter; and
- Catherine Van Dyke.

Subsequent to the meeting, the following information was submitted for the record:

- The Pew Charitable Trusts in response to questions posed by the Committee during the meeting ([Agenda Item XIII B](#));
- A report from Ceres titled *Sustainable Solutions for Data Centers* ([Agenda Item XIII C](#));
- A fact sheet from NREA regarding infrastructure costs ([Agenda Item XIII D](#));
- PUCN Order, December 27, 2024 ([Agenda Item XIII E](#));
- DCC comments to the FERC ([Agenda Item XIII F](#));
- DCC comments to the North Carolina Utilities Commission ([Agenda Item XIII G](#)); and
- DCC water fact sheet ([Agenda Item XIII H](#)).

AGENDA ITEM XIV—ADJOURNMENT

There being no further business to come before the Committees, the meeting was adjourned at 4:05 p.m.

Respectfully submitted,

Jen Jacobsen
Research Policy Assistant

Becky Peratt
Senior Policy Analyst

Keely Latham
Senior Policy Analyst

APPROVED BY:

Assemblymember Natha C. Anderson, Chair

Date: _____

Assemblymember Howard Watts, Chair

Date: _____

MEETING MATERIALS

AGENDA ITEM	PRESENTER/ENTITY	DESCRIPTION
Agenda Item II A	Ellie Waller, Resident, Douglas County, Nevada	Written Public Comment
Agenda Item II B	Bari Levinson, Member of the Public	Written Public Comment
Agenda Item II C	Shari Whalen, General Manager, Tahoe Reno Industrial General Improvement District, Storey County	Written Public Comment
Agenda Item II D	Paulette Henriod, Environmental Advocacy Specialist, Mormon Women for Ethical Government	Written Public Comment
Agenda Item II E-1	Caitlin Gatchalian, Nevada Representative, Southwest Energy Efficiency Project (SWEEP)	Report
Agenda Item II E-2	Caitlin Gatchalian, Nevada Representative, SWEEP	Written Public Comment
Agenda Item II F	Emily Richardson	Written Public Comment
Agenda Item II G	Elizabeth Bree Kasper	Written Public Comment
Agenda Item III	John Begala, Officer, Energy Modernization Project, The Pew Charitable Trusts; and John Seebach, Project Director, U.S. Conservation Program, The Pew Charitable Trusts	Microsoft PowerPoint Presentation
Agenda Item IV	Tom Klein, Policy Associate, Environment Program, National Council of State Legislatures (NCSL); and Alex McWard, Senior Policy Specialist, Energy Program, NCSL	Microsoft PowerPoint Presentation

AGENDA ITEM	PRESENTER/ENTITY	DESCRIPTION
<u>Agenda Item V</u>	Sean A. McKenna, Ph.D., Senior Program Developer, Executive Director, Division of Hydrologic Sciences, Desert Research Institute (DRI); and Erik M. Henzl, Staff Research Scientist, Environmental Economist, Division of Hydrologic Services, DRI	Microsoft PowerPoint Presentation
<u>Agenda Item VI A</u>	Tony Sanchez, Executive Vice President, Business Development and External Relations, NV Energy; and Shawn Elicegui, Senior Vice President, Regulatory and Resource Planning, NV Energy	Microsoft PowerPoint Presentation
<u>Agenda Item VI B</u>	Lisa Levine, Executive Director, Nevada Rural Electric Association (NREA)	Microsoft PowerPoint Presentation
<u>Agenda Item VIII</u>	Kenneth A. Cottrell, M.A., Chief Executive Officer, Presentation Green Chain Incentives, and Doctoral Candidate 2026, School of Public Policy and Leadership, University of Nevada, Las Vegas	Microsoft PowerPoint Presentation
<u>Agenda Item IX A</u>	John J. Entsminger, General Manager, Southern Nevada Water Authority	Microsoft PowerPoint Presentation
<u>Agenda Item X A</u>	Dan Diorio, Vice President of State Policy, Data Center Coalition (DCC)	Microsoft PowerPoint Presentation
<u>Agenda Item X B</u>	Tyler Huebner, Central United States Regional Manager, Google Energy Market Development	Microsoft PowerPoint Presentation

AGENDA ITEM	PRESENTER/ENTITY	DESCRIPTION
<u>Agenda Item XI</u>	Abbey Benesh, Director of Advocacy, Green Building Initiative (GBI); and Emily Bowers, State and Local Representative, GBI	Microsoft PowerPoint Presentation
<u>Agenda Item XII A</u>	Stacy Tellinghuisen, Deputy Director of Policy Development, Western Resource Advocates Clean Energy Program	Microsoft PowerPoint Presentation
<u>Agenda Item XII C</u>	Olivia Tanager, Executive Director, Sierra Club Toiyabe Chapter	Microsoft PowerPoint Presentation
<u>Agenda Item XIII A</u>	Compilation of Public Comment	Compilation of Public Comment
<u>Agenda Item XIII B</u>	John Begala, Officer, Energy Modernization Project, The Pew Charitable Trusts	Response to Questions Submitted After the Meeting
<u>Agenda Item XIII C</u>	Ceres	<i>Sustainable Solutions for Data Centers Report</i>
<u>Agenda Item XIII D</u>	Lisa Levine, Executive Director, NREA	Fact Sheet Submitted After the Meeting
<u>Agenda Item XIII E</u>	Garrett Weir, General Counsel, Public Utilities Commission of Nevada	Order Submitted After the Meeting
<u>Agenda Item XIII F</u>	Dan Diorio, Vice President of State Policy, DCC	Comments to the Federal Energy Regulatory Commission Submitted After the Meeting
<u>Agenda Item XIII G</u>	Dan Diorio, Vice President of State Policy, DCC	Comments to the North Carolina Utilities Commission Submitted After the Meeting
<u>Agenda Item XIII H</u>	Dan Diorio, Vice President of State Policy, DCC	Fact Sheet Submitted After the Meeting

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