

Testimony of Nick Myers
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Before the Subcommittee on Energy, Climate, & Grid Security
“Powered Up: State Utility Regulators on Challenges to Reliable, Affordable Electricity.”

Wednesday, February 14, 2024

Chairman Duncan, Ranking Member DeGette, and members of the subcommittee:

Good morning and thank you for this opportunity to testify before the subcommittee today as it examines the challenges to reliable, affordable electricity from a state regulator perspective. My name is Nick Myers. I am one of five Commissioners elected to the Arizona Corporation Commission, which among its various responsibilities, includes regulating electric, gas, water, and wastewater utilities throughout the state. The views I am sharing this morning are my own.

As a state commissioner, my primary constitutional responsibility is to ensure Arizona utilities, including electric utilities, provide reliable and affordable service to their customers. As Commissioners, we must balance the priorities of establishing just and reasonable rates with maintaining a safe and reliable grid that can meet Arizona's growing energy needs. I was elected on the campaign promise that I would first prioritize grid reliability, second affordability, and third, as long as it did not undermine the first two priorities, I would encourage the adoption of renewable energy. As I travel through the state and hear from my constituents, they not only want reliable and affordable energy, but they are also adamant that they want to keep Arizona energy as independent as possible. They want to determine Arizona's energy future, which includes maintaining control of our prized Palo Verde nuclear power plant. My constituents are concerned with outside interests and mandates from the federal government or neighboring states that could jeopardize reliability and increase costs in Arizona. In fact, my constituents are already paying the price of federal mandates in the form of expensive pollution control equipment that Arizona utilities were required to install in order to comply with the EPA Regional Haze Rule.

Arizona is facing several challenges as it seeks to maintain reliable and affordable electric service, three of which I will briefly discuss. First, the state is experiencing unprecedented growth in load and peak demand, which are expected to continue in the coming years. Second, the limited

availability of capacity resources in the western market due to the regional transition to renewable energy makes it more difficult for utilities to prepare for Arizona summers. Third, the early retirement of coal generation in Arizona due to federal regulation is forcing utilities to develop largescale replacement capacity resources, including solar, solar and battery, and wind, but also substantial firm capacity from natural gas generation to maintain reliability and resource adequacy in the near-term.

Challenges to Reliable, Affordable Electricity in Arizona:

1. Keeping ahead of unprecedented growth in load and peak demand, which are expected to continue in the coming years

Keeping ahead of the unprecedented growth in load and peak demand, which are expected to continue in the coming years, is one of the greatest challenges to maintaining reliable and affordable electricity in Arizona. The state's population has grown by 3.76% since 2020 and by almost 14% since 2010. However, the most significant source of energy growth in the coming years is not residential growth, but rather new data centers and large industrial & manufacturing plants that are coming online.

As one example, Arizona Public Service Company (APS), our state's largest electric utility, has been experiencing consistent and substantial customer and load growth and anticipates greater growth in the next few years. It estimates a 60% increase in energy usage and a 40% increase in peak demand from 2023 to 2030. Over the next fifteen years, APS expects that new data centers and large industrial & manufacturing will account for more than seventy-five percent of the energy growth. The next two drivers of energy growth are commercial & industrial and electric vehicle adoption, which combined are expected to account for around eighteen percent of the growth.

This unprecedented growth in load and peak demand will require substantial new generation, transmission, and distribution infrastructure in order to maintain reliability and will certainly impact affordability.

2. Meeting summer peak demand while the western region transitions to renewable energy

Meeting summer peak demand while the western region transitions to renewable energy is another significant challenge that Arizona utilities face as they seek to maintain reliable and affordable service. Outages and disruptions in service during the summer in parts of Arizona pose significant health and safety concerns, especially among vulnerable populations. In 2023, Phoenix had 133 days at or above 100 degrees and 55 days at or above 110 degrees. After sixteen straight days at or above 110 degrees, on July 14, 2023, APS broke its system peak demand record. This new record was broken the next day, and then again on July 20, when peak demand reached an all-time high of 8,193 MW, over 500 MWs higher than the 7,660 MW record set in 2020. Likewise, Salt River Project reached its highest system peak demand of 8,163 MW in July 2023 and the demand over that summer exceeded the previous summer peak across 66 hours on 15 different days. Even with these higher load and peak demand numbers, Arizona utilities were able to successfully meet the demand and keep air conditioners running.

However, with each passing summer, the ability to meet the growing demand is becoming more difficult. Previously, Arizona utilities relied more on the market for firm capacity to meet the higher demands in the summer, especially peak demand. But as the western region transitions to intermittent renewable resources the availability of reliable capacity resources is becoming more limited. And if energy is available during these peak times in the summer, it is at a higher, and

sometimes exorbitant cost to ratepayers. The days of excess energy available in the western market at a reasonable cost to meet the energy needs during Arizona's summers are seemingly gone.

3. Planned early retirement of coal generation

A third challenge to reliable and affordable electricity in Arizona is the planned early retirement of coal generation. For example, the owners of Four Corners Power Plant (APS 63%, SRP 10%, and Tucson Electric Power 7% [TEP]) have agreed to close the plant in 2031 rather than 2038. According to our utilities, it is simply not cost-effective to keep operating the coal power plant past 2031 because of federal regulations, even though the local communities that depend on the plant would prefer it remain open.

The early retirement of coal generation not only creates stranded costs but is also forcing utilities to invest in largescale replacement capacity resources, including solar, solar and battery, and wind, but also substantial firm capacity from natural gas generation to maintain reliability and resource adequacy in the near-term. In effect, ratepayers are paying 2-3 times for the same energy. In addition, such a large dependence on these replacement resources does create some reliability risks. Solar and wind energy are intermittent. Battery storage is a newer technology, with not much of a track record at such a large scale. Natural gas is needed to complement the renewable resources, but there are significant gas supply constraints in Arizona and aggressive environmental special interest groups eager to litigate new gas generation, even when it is necessary to ensure reliability. There is also the ever-present risk of global supply chain issues that may delay the availability of these projects when they are needed.

In any case, these substantial investments in replacement resources will impact the affordability of electricity and the increased use of intermittent renewable resources is requiring

utilities to increase their reserve margin. APS is planning to increase its reserve margin from 15% to 20.2%, while TEP is increasing theirs from 15% to 16.5%. These changes reduce reliability risk but will negatively impact affordability.

How Arizona is Addressing These Challenges:

Arizona is addressing the challenges to reliability and affordability of electricity in several ways:

1. Integrated Resource Plan (IRP)

The Commission requires load serving entities to file Integrated Resource Plans every three years for the Commission's consideration. The plans cover a 15-year horizon and include a 5-year Action Plan. The Commission requires the utilities to evaluate at least ten resource portfolios to reliably meet customer demand over the 15-year planning period. Utilities must include some portfolios as specified by the Commission, including a technology agnostic (neutral) resource portfolio, which is the least-cost method to safely and reliably meet demand.

Some additional unique energy resources that may be available for Arizona utilities in the future are pumped hydro, additional nuclear, and natural gas storage (salt caverns).

2. Biennial Transmission Assessment (BTA)

The Commission performs a biennial review of the ten-year transmission plans filed by parties who are responsible for transmission facilities in Arizona and issues a written decision regarding the adequacy of the existing and planned transmission facilities to reliably meet the present and future transmission system needs of Arizona.

3. Summer Preparedness Workshop

Each year at a summer preparedness workshop, utilities confirm with the Commission that they are prepared to provide reliable service during the upcoming summer. They present information regarding their resource adequacy, projected load and peak demand, natural gas supply, transmission and distribution plans, fire mitigation, and emergency management. During the last two summer preparedness workshops, utilities have expressed confidence they can meet demand that summer, but they have expressed concern as they look to summers two or three years out.

4. Rate Cases

The current Commission is focused on balancing the interests of keeping rates affordable for customers and the need for utilities to have rates that will allow them to keep the grid reliable. The current Commission is also seeking to improve customer affordability by removing subsidies where possible, especially if they favor one technology over others. In recent votes, the Commission has expressed its disapproval of using ratepayer funds to build out EV infrastructure and its disapproval of using ratepayer funds to subsidize rooftop solar customers. The Commission is also exploring the possibility of using hybrid or future test years to reduce regulatory lag and encourage needed investments in our utilities.

5. Regional Markets

Arizona's larger utilities are participants in California ISO's Western Energy Imbalance Market (WEIM) and are exploring California ISO's Extended Day-Ahead Market (EDAM) and Southwest Power Pool's Markets+. Joining a day-ahead market would provide additional savings to Arizona customers but would not be used to address resource adequacy. Markets+ requires that each participant be able to show it can cover its entire demand without relying on the market. As

a state regulator representing Arizona, I'm a member of the Markets+ State Committee and I'm on the Markets+ Resource Adequacy Task Force, where the group is discussing how the Western Resource Adequacy Program (WRAP) will ensure every market participant will maintain reliability and resiliency while contributing to the market. The group is focused on developing a standardized calculation method that ensures all energy is counted appropriately and consistently among market participants.

At this point, Arizona utilities are exploring the possibility of joining a day-ahead market, looking specifically to governance, resource adequacy requirements, and market footprint. If joining a day-ahead market proves to benefit customers over time, they will then begin the process of evaluating the benefits of participation in a Regional Transmission Organization (RTO). Because of certain provisions in Arizona's constitution, there are still some unresolved legal questions as to whether Arizona utilities can join an RTO.

Conclusion:

Like every other state, Arizona has its unique energy needs and challenges to reliable and affordable electricity. Arizona utilities and state regulators are best positioned to address these context-specific needs and challenges. The current Commission's approach is an "all of the above approach" because utilities need a diversified energy mix to maintain their reliable and affordable service. In recent votes, the Commission has opposed government mandates (even its own) that may unnecessarily drive-up rates and keep utilities from making the best decisions for their customers. Although joining an RTO has some undeniable economic benefits, there is some concern with handing over control of Arizona's energy future to those outside of the state whose primary concern is not Arizona. Arizona's utilities have successfully met the energy challenges in our state. Will outside entities have the same commitment to Arizona?

Summary of Testimony

- My priorities as a commissioner: 1. Reliability, 2. Affordability, 3. Renewable energy
- Constituents want Arizona energy as independent as possible; concerned with federal or neighboring state mandates that could jeopardize reliability and increase costs in Arizona

Challenges to Reliable, Affordable Electricity in Arizona:

1. Keeping ahead of unprecedented growth in load and peak demand, which are expected to continue in the coming years:
 - a. Primary drivers of energy growth: data centers, large industrial & manufacturing
 - b. E.g., APS estimates 60% increase in energy usage and a 40% increase in peak demand from 2023 to 2030.
2. Meeting summer peak demand while the western region transitions to renewable energy
 - a. Availability of reliable capacity resources is becoming more limited in the western market as Arizona utilities break records for summer peak demand in 2023.
3. Planned early retirement of coal generation due to federal regulation
 - a. Stranded costs; high replacement costs; risk involved with depending on intermittent resources, newer technology, and limited supplies of natural gas; larger reserve margins needed which increase costs

How Arizona is Addressing These Challenges:

1. Integrated Resource Plan (IRP):
 - a. Plans analyzing resource portfolios over 15-year horizon filed every 3 years
2. Biennial Transmission Assessment (BTA):
 - a. Biennial review of the ten-year transmission plans filed by utilities and developers
3. Summer Preparedness Workshop:
 - a. Utilities address their resource adequacy, projected load and peak demand, natural gas supply, transmission and distribution plans, fire mitigation, and emergency management.
4. Rate Cases:
 - a. Commission limiting subsidies that drive up rates
 - b. Exploring hybrid or future test year to address regulatory lag and encourage needed investments
5. Regional Markets:
 - a. Arizona utilities are participating in CAISO WEIM; exploring day-ahead markets
 - b. Legal questions remain regarding RTO and Arizona Constitution.

Conclusion:

- Arizona utilities and state regulators are best positioned to address these context-specific needs and challenges.
- Utilities need a diversified energy mix to maintain reliable and affordable service.
- Commission opposes mandates that drive up costs for ratepayers.
- Arizona utilities are successfully addressing challenges to reliable and affordable electricity.
- There is concern with handing over control of Arizona's energy future to entities outside of the state.