

# James F. Ellison, Jr., CFA

*Professional with experience in electric utility regulation, operations and planning, modeling/analysis, and business development, with a strong understanding of power markets, renewable energy, and energy storage.*

## **Experience**

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### **New Mexico Public Regulation Commission (NMPRC)**

*Commissioner*

2023-Present

- Leading the effort to create the Commission's first electric distribution system reliability rulemaking
- Representing New Mexico on the regional committee advising the Western Resource Adequacy Program
- Engaging in national-level regulatory committees and workshops, such as the NARUC (Natl. Assn. of Regulatory Utility Commissioners) Natural Gas Committee and Natural Gas Task Force
- Have consistently approached all NMPRC matters with preparedness and professionalism, striving to make fair, unbiased decisions in the public interest

### **Sandia National Laboratories**

*Principal Grid Analyst*

*Grid Modernization Group*

2021-2022

- Performed study on solar and wind forecast errors, and the amount of regulating reserve required to compensate for such errors, on the PNM system
- Performed analysis on how climate change might impact PNM's solar and wind generation

### **Cimarron Power LLC**

*Managing Director*

2018-2021

- Founder of firm focusing on island LNG regasification terminal development
- Assembled network of professionals to assist with all aspects of project development

### **Sandia National Laboratories**

*Principal Member Technical Staff*

*Energy Storage and Transmission Analysis Group*

2011-2018

- Identified and acquired a state-of-the-art power system production cost model, bringing a new capability to Sandia
- Used model to do in-depth studies of power grids, focusing on evaluating energy storage and the integration of renewables
  - Led energy storage valuation studies for Maui and Oahu, and contributed to a study for Nevada
  - The Maui study helped inform Hawaiian Electric's decision to acquire additional storage in order to reduce wind power curtailment on Maui

*National Infrastructure Simulation and Analysis Group (NISAC)*

2005-2011

- Performed work projecting the impact of natural disasters on infrastructure for the Dept. of Homeland Security
  - Hurricane Katrina analysis (prior to landfall) is an example of rapid-response work
  - An analysis of the U.S. power grid's vulnerability to the loss of high-capacity transformers is an example of a planned study
- Identified, acquired, and gained expertise in using a natural gas network model, bringing a new capability to Sandia
  - Analyzed the impact of a New Madrid and a San Andreas Fault earthquake on natural gas infrastructure
  - Studied whether the natural gas network could compensate for the loss of a major pipeline in supplying a key Nevada thermal power plant

### **AES Corporation**

*Business Development*

1997 - 2004

- Financial model developer on team that successfully negotiated the purchase and sale contract for both the power distribution company of Tbilisi, Georgia and a key thermal power plant near Tbilisi
- Led acquisition of bituminous coal mine in Kazakhstan producing over three million tons of coal per year

*Government Relations*

- Established initial contacts with Government of Georgia officials and set up meeting between AES management and the President of Georgia
- Served as primary company interface with the Georgia National Energy Regulatory Commission, establishing a strong working relationship

### *Leadership*

- Director of AES KievOblenergo (3500-employee power distribution company in Ukraine)
  - Assembled strong leadership team, oversaw improvement of operations, defended tariff
  - Identified way to eliminate double-taxation of company, increasing the net present value of the subsidiary to AES Corp by \$20M
- Director of AES Ekibastuz (4000-MW coal-fired generator in Kazakhstan)
  - Created project team to successfully burn alternative type of coal, diversifying sources of coal and improving negotiating position for coal purchases

### **Education**

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#### **STANFORD UNIVERSITY**

*Master of Science in Management, Stanford Graduate School of Business*

#### **MASSACHUSETTS INSTITUTE OF TECHNOLOGY**

*Master of Science in Technology and Policy, Master of Science in Mechanical Engineering*

Co-founder of MIT Model United Nations Team, Summer internships with ABB (Berlin) and SAIC (Moscow)

#### **CLEMSON UNIVERSITY**

*Bachelor of Arts in Physics and Political Science, magna cum laude*

Model United Nations Team (President), Arms Control and Disarmament research, Student Senate, Intern in France

### **Selected Publications**

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Ellison, James F., Cody J. Newlun, and Andrew G. Benson. "An Analysis of PNM's Renewable Reserve Requirements to Meet New Mexico's Decarbonization Goals." Sandia National Laboratories (SAND) Report, SAND2022-6704, May 2022. <https://doi.org/10.2172/1868430>. Accessed September 26, 2022.

Ho, Clifford, Erika Roesler, Tu Nguyen, and James Ellison. "Probabilistic Modeling of Climate Change Impacts on Renewable Energy and Storage Requirements for New Mexico's Energy Transition Act." Proceedings, American Society of Mechanical Engineers (ASME) 2022 Energy Sustainability Conference, Philadelphia, PA, July 2022.

Ellison, James F., Lee J. Rashkin, Joseph Serio, and Raymond H. Byrne. "The Benefits of Grid-Scale Storage on Oahu." *Journal of Energy Storage* 15 (2018), pp. 336-344.

Ellison, James, Dhruv Bhatnagar, Nader Samaan, and Chunlian Jin. "NV Energy Electricity Storage Valuation." SAND2013-4902, June 2013. <https://doi.org/10.2172/1089991>. Accessed September 26, 2022.

Ellison, James F., Thomas F. Corbet, and Robert E. Brooks. "Natural Gas Network Resiliency to a 'Shakeout Scenario' Earthquake." SAND2013-4938, June 2013. <https://doi.org/10.2172/1089984>. Accessed September 26, 2022.

Ellison, James F., Dhruv Bhatnagar, Clifton Black, and Kip Jenkins. "Southern Company Energy Storage Study." SAND2013-2251, March 2013. <https://doi.org/10.2172/1095925>. Accessed September 26, 2022.

Ellison, James F., Dhruv Bhatnagar, and Benjamin Karlson. "Maui Energy Storage Study." SAND2012-10314, December 2012. <https://doi.org/10.2172/1088089>. Accessed September 26, 2022.

Ellison, James F., Leigh Tesfatsion, and Verne Loose. "A Survey of Operating Reserve Markets in U.S. ISO/RTO-managed Electric Energy Regions." SAND2012-0782J, January 2012. <https://doi.org/10.2172/1055600>. Accessed September 26, 2022.

### **Additional Information**

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Chartered Financial Analyst® (CFA®) charterholder

Fluent in Russian and French, conversational in Japanese

July 30, 2024



New Mexico PRC Nominating Committee  
P.O. Box 1269  
Santa Fe, NM 87504-1269



Dear Nominating Committee Members:

My name is James Ellison. As an incumbent member of the Commission, appointed by Governor Michelle Lujan Grisham to serve a two-year term starting on January 1, 2022, I have demonstrated my dedication to making fair, unbiased decisions in the public interest. I have approached each case with preparedness and professionalism, and am committed to continuing to do so. I have the proven ability to work with my fellow Commissioners in a constructive manner, while at the same time having the courage to stand up for my convictions.

I continue to meet the educational requirements of this position: I have baccalaureate degrees in Physics and Political Science from Clemson University, masters degrees in engineering and policy from MIT, and a masters in business from Stanford University.

I also continue to meet the professional experience requirement, as I have worked for over ten years in relevant areas. I worked at a power company (AES Corporation) for eight years, where I obtained utility operations and business experience. In addition, I worked at Sandia National Laboratories for over ten years – much of this time was on power systems analysis and planning, including energy storage and integrating renewable energy into the grid. By the end of this year, I will also have served two years as a member of the Commission of the NMPRC. I am registered as an Independent in Bernalillo County.

While previously Commissioners represented districts, now each Commissioner represents the whole of New Mexico. I take this responsibility to represent all New Mexicans seriously. Throughout my term, I have demonstrated my equal concern about rates and investments for Southwestern Public Service (SPS), El Paso Electric (EPE), and the Public Service Company of New Mexico (PNM). Even though the NMPRC has “light touch” regulation over rural electric co-ops, these utilities serve 80% of the territory of our state. The oversight role of the Commission over rural electric co-ops is an important one.

In representing all New Mexicans, it is important to provide opportunities for connecting with the Commission beyond the ability to offer public comment by videoconference. To that end, I visited Farmington last fall to speak about natural gas regulation, the energy transition, and the NMPRC. The NMPRC regularly holds public comment sessions in locations impacted by its decisions, such as the meeting held in Sandoval County regarding a New Mexico Gas Company

proposed project. The Commission held its June 13, 2024 open meeting in Hobbs to interact with the local community and solicit feedback from SPS ratepayers. This fiscal year, the Commission plans to conduct ten meetings outside of Santa Fe.

Our State is at a critical juncture in our transition to zero-carbon generation. During this transition, we must ensure that reliability is maintained and that rates remain reasonable. As more solar and wind generation are built, it is necessary to maintain sufficient levels of dispatchable generation. As zero-carbon generation by 2045 is a mandate – not a target – it would be wise to explore least-cost ways of providing dispatchable carbon-free generation sooner rather than later. Exclusively building solar generation and battery storage may not be the least-cost answer – dispatchable zero-carbon generation, such as the use of hydrogen as a fuel, may play a role.

The NMPRC also plays a key role in regulating natural gas distribution. Many New Mexicans depend on natural gas for their winter heating. Many will recall the service interruption experienced in northern New Mexico in February 2011, as well as the unprecedented gas price spike during Winter Storm Uri (February 2021). New Mexicans have a right to expect safe, reliable, and reasonably-priced natural gas service. I am committed to effective and proactive oversight over natural gas distribution.

While the NMPRC's jurisdiction is within New Mexico, focusing exclusively on intrastate matters would be short-sighted. The Western Interconnection, which most of our State is a part of, is famously balkanized, consisting of thirty-seven independent balancing authorities. This is in contrast to the Eastern Interconnection, which is comprised of a few large regional transmission organizations (RTOs) and independent system operators (ISOs). Larger power pools allow for more efficient dispatch, therefore providing savings to customers.

The Western Interconnection has slowly moved towards greater integration. One important step was the advent of the Western Energy Imbalance Market (WEIM), of which both PNM and EPE are members. However, the WEIM deals with real-time energy imbalance only. The next step in regional integration is a day-ahead market, which would allow for the centralized dispatch of power plants on a regional basis. While not previously the case, now there is real momentum for the creation of a day-ahead market.

I believe it is critical for the Commission to remain engaged in developments around regional integration. I serve as New Mexico's representative on the Committee of State Representatives (COSR), which advises the Western Resource Adequacy Program (WRAP). This Program will provide a resource backstop to utilities experiencing an unforeseen problem with generation, such as an unforeseen need for major power plant maintenance. It would guarantee that a member utility could receive a block of power to replace the unavailable capacity. However, without certain modifications to the FERC tariff on file for the WRAP, it is possible that this program may not come into existence. I believe allowing this program to fail would be a

mistake, and continue to be engaged with this Committee and with the Commission on this matter.

It is also important to be engaged nationally with other state regulators in order to share best practices. To this end, I am a member of the National Association of Regulatory Utility Commissioners (NARUC) Natural Gas Committee, as well as the NARUC Natural Gas Task Force. This participation has resulted in information about the amount of physical gas storage in other jurisdictions, insights into the importance gas storage, and a better understanding of gas procurement and hedging practices.

The importance of Commission rulemakings is often underestimated. While the big rate case decisions grab the headlines, NMPRC rules impact how utilities conduct their generation, transmission, and distribution planning, as well as their day-to-day operations. I successfully advocated for, and have taken the lead in organizing, a reliability rulemaking. Reliability is at the core of our electric utilities' mission. I believe that ratepayers have a right to expect electric service not only with rates that are fair, just, and reasonable, but also with a reasonable level of reliability. To date, the NMPRC has not required the submission of reliability data from utilities. However, once this new rule is adopted, they will be required to submit reliability data of a kind and in a format that will provide the Commission as well as the public with an understanding of their reliability performance.

Given the complexity of the work, it takes time to become an effective Commissioner. I now have much of that learning curve behind me. This is another reason why giving the Governor the option of reappointing me is in the public interest. I believe that my name merits inclusion on the list of candidates for NMPRC Commissioner that you will send to the Governor.

It has been, and continues to be, an honor and a privilege to serve on the Commission.

Thank you for your time and consideration.

Regards,

A handwritten signature in blue ink that reads "J. Ellison, Jr." with a stylized flourish at the end.

James Ellison