

September 27, 2022

██████████
Cedar Crest, NM 87008

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

Dear Nominating Committee Members:

My name is James Ellison. I meet the educational requirements of this position: I have baccalaureate degrees in Physics and Political Science from Clemson University, graduate degrees in engineering and policy from MIT, and a masters in business from Stanford University.

I also 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 have worked at Sandia National Laboratories for over ten years – much of this time I have been focusing on power systems analysis and planning, including energy storage and integrating renewable energy into the grid. I am registered as an Independent in Bernalillo County.

I have an in-depth understanding of the planning process and the models used. I speak the same language as the utility planners. This means that during the Integrated Resource Planning process, I am well-positioned to ask probing questions as to the assumptions used, as well as ask for specific scenarios to be studied.

I also know what it takes to keep the lights on. The transition to renewable energy needs to be handled carefully in order for reliability to be maintained. While ensuring the affordability of rates is a key goal, the Commission must also allow utilities to have the resources and tools needed to succeed.

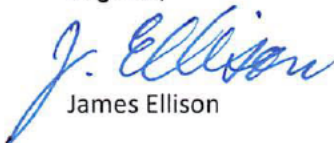
I am committed to listening to each case fairly and impartially, and to helping make the best decision possible. I am good at working with my colleagues in a constructive manner.

New Mexico has a historic opportunity to reshape the PRC. The new PRC should be focused on achieving the Energy Transition Act mandates in a responsible way that maintains reliability while minimizing cost. The PRC needs at least one commissioner with experience in power systems planning and operations. I would make a strong addition to the Commission.

I would appreciate the opportunity to discuss my candidacy with you in person.

Thank you for your time and consideration.

Regards,


James Ellison

James F. Ellison, Jr., CFA
(505) [REDACTED] • [REDACTED]@alum.mit.edu

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

Experience

Sandia National Laboratories

Principal Grid Analyst

Grid Modernization Group

2021-Present

- 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

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

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

Chartered Financial Analyst® (CFA®) charterholder

Fluent in Russian and French, conversational in Japanese