Prepared Statement for Ms. Patricia K. Vincent-Collawn Chairman, President & CEO PNM Resources, Inc.

US Department of Energy – Quadrennial Energy Review Meeting July 11, 2014

Thank you for the opportunity to participate in the Quadrennial Energy Review. My name is Pat Vincent-Collawn Chairman, President & CEO of PNM Resources. I also serve as cochair for Edison Electric Institute's Energy Delivery Policy Committee, and have been on the board of the Electric Power Research Institute (EPRI) since 2010.

Today, U.S. Investor-Owned Utilities (IOUs) are facilitating the transition to a more modern integrated grid by making significant investments in the distribution systems that carry electricity to customers. Since the beginning of 2000, the industry has invested \$275 billion (2012 \$) in the nation's distribution system. Distribution capital expenditures by IOUs in 2013 is estimated to be approximately \$19.6 billion, and it is projected to increase year over year. By 2017, these expenditures are projected to reach \$23.0 billion.

PNM Resources is the holding company for two utilities- PNM and TNMP- that collectively serve nearly three-quarters of a million customers in New Mexico and Texas. We are the only publicly-traded company headquartered in New Mexico. For the purpose of today's meeting I will focus on PNM, a vertically integrated utility that exemplifies virtually all of the challenges and opportunities facing most electric utilities today, especially those in the Western United States. PNM faces several major challenges:

Our state is one of the poorest in the nation, yet has significant renewable energy potential and many of our customers want reliable, low-cost, and greener electric generation. At PNM, we are working very hard to facilitate increasing amounts of distributed generation and other renewable resources in ways that do not impact reliability or overburden our less fortunate customers. In particular, as the result of a planned shutdown of 837 MW of coal and growing customer interest, we anticipate increased deployment of distributed generation and the need for upgrading the grid.

New Mexico remains in the grip of severe drought, and PNM must consider the availability of and the impact on precious water resources with every generation technologyrelated decision, as was discussed at last month's QER public meeting in San Francisco.

At PNM, we also work closely with the 22 tribes and pueblos located in the state on many topics, including transmission, which in New Mexico also can involve private, state, and federal land, including several military installations.

Customer expectations and public policies focused on reliable, low-cost, greener electric generation are accelerating the distribution system's transition. We are asking a great deal of the Grid- and our ratepayers: swift, sweeping, complicated, and capital intensive changes. The electric industry is currently investing in distribution system upgrades and enhancements; adopting advanced technologies; and improving operational, planning, and coordination efforts

to better meet the needs of our society. The increased capital expenditures on distribution that I cited earlier are helping companies to ramp up the development and deployment of new technologies and operations, such as automated metering infrastructure, which includes new communications networks and database systems that will enhance our nation's electric grid and ultimately create a smart grid.

My comments will focus on 3 key themes:

- 1. Value of the Grid
- 2. The Grid of the Future Will Require Proper Integration and Investment
- 3. Future Role of Utilities

Value of the Integrated Grid

The transmission and distribution systems are great enablers for emerging distribution level technologies. They provide the linkage that allows emerging technologies to reliably and cost effectively benefit customers. Emerging technologies include variable and currently nondispatchable distributed generation, such as rooftop solar and microturbines, plug-in electric vehicles, distributed energy storage devices, and load management systems.

Not only does the Grid support the value proposition of all of these technologies by providing critical support services (such as supplemental power, balancing, frequency control) and a platform to sell power back to the Grid, the Grid is critical in providing reliability and power quality at all times. And at all times, the Grid must be fairly and adequately valued and compensated- all who benefit from the Grid should pay for the Grid. Our industry is concerned that the Grid is not being appropriately valued or

compensated. For example, in efforts to encourage the deployment of distributed generation technologies, such as rooftop solar, "Net Metering" policies have been adopted. Under these programs net-metered customers are typically credited for the power they sell back to the Grid at the full retail electricity rate instead of the wholesale electricity wholesale rate. This means that net-metered customers avoid paying the costs of the Grid that they still use (e.g., poles, wires, and meters), creating an unsustainable subsidy in which costs are passed on to those customers without DG resources, often those who are least able to afford it.

Our industry utilizes cost-of-service methodologies to derive rates paid by utility customers. However, some advocate valuation of emerging technologies based on speculative benefits or attributes which are not recoverable for existing utility assets. To avoid price distortions, a fair system in which the same attributes and valuation methodologies are applied to <u>all</u> resources, is necessary.

Proper Integration and Investment:

Proper integration into the Grid, not just interconnection to the Grid, is critical.

The distribution system was originally designed to send electricity to commercial and residential customers and was not originally designed to accommodate high penetrations of distributed energy resources or facilitate two-way power flows while maintaining high levels of electric reliability.

The Electric Power Research Institute (EPRI) is investigating emerging technologies and their integration in-depth in a study entitled "The Integrated Grid." EPRI's approach is not to favor any particular energy technology, power system configuration, or power market structure. Instead, EPRI correctly recognizes that the very best solutions will vary with local circumstances, goals, and interconnections.

In order to achieve proper integration of the Grid, utilities, policy makers, grid operators, and manufacturers should consider interconnection rules, long- term planning and interconnection standards, and advanced communications and operational technologies. Stakeholders must strategize long-term coordinated planning and operations. Flexibility in the regulatory arena must be exercised. Utilities must have operational awareness of all resources connected to its systems, and the industry must continue our vigilance to protect against cybersecurity and physical threats to our systems. Moreover, jurisdictional authorities and utility obligations in the states must be recognized. In sum, holistic planning and evaluation of capital investment plans is critical.

The transition of the distribution system will drive investment needs. Legacy distribution systems will need to be re-developed to support bi-directional and variable energy flows. Technological obsolescence will drive continuous investment. The electric industry is willing and able to make the needed investments- but they need to be well-planned and costs must be fairly shared. Regulators can help realize these goals by providing regulatory certainty, and fair and timely investment recovery. As I mentioned earlier, PNM operates in a state with an abundance of renewable resources. We know that renewable generation will become a larger part of our portfolio and is an increasing desire of many of our customers. PNM has been proactive in evaluating energy storage to help us improve the value of, and better integrate, emerging technologies. Our Prosperity Energy Storage project, which couples battery energy storage directly with utility scale solar generation, has been in operation for nearly three years. The project was part of the DOE's Smart Grid Demonstration Grants in Energy Storage, and was a highly regarded project within DOE as it was on time, on budget, and delivered the results promised. Essentially, Prosperity provides significant value by reducing variability on the grid caused by the intermittent nature of solar generation on cloudy days by making it dispatchable – solar energy stored in the battery can be used at any time. The project's "lessons learned" are being shared across the industry both nationwide and internationally. I am very proud of our leadership role. And I'd like to take this opportunity to issue an open invitation to tour Prosperity Energy Storage Project in conjunction with the August 11 QER in Santa Fe, New Mexico.

Future Role of Utilities

Reliability is mission number one for our industry, and we must ensure that our transformative efforts do not undermine reliability and safety. Utilities possess unique knowledge and expertise in system operations and configurations, long-term planning, and other local and regional characteristics. Moreover, we have a proven track record of meeting responsibilities under the regulatory construct between utilities, customers, and regulators. Therefore, utilities should continue to plan, build, and operate the distribution system. As we modernize the grid to support the integration of ever larger volumes of distributed energy, the utility's role in the market is changing. In PNM's service territory we anticipate more distributed resources and more complex customer load profiles. PNM's responsibility of providing affordable, reliable, and environmentally friendly power will continue, despite these increasing complexities. To meet these challenges, PNM will continue to evolve, expanding partnerships with customers, national laboratories, local universities, and internationally to help us in this evolution. For example, the Prosperity project I mentioned effectively modeled the coordination of utility scale solar and battery storage with a microgrid. This project demonstrated improved performance of the local distribution system through collaboration of utility and customer side resources. We are also improving modeling of our distribution system to ensure reliability and power quality in light of the complexities discussed today.

Closing:

Utilities like PNM are in the trenches of the energy revolution – which is where we belong -- facilitating and supporting the change that will ultimately result in the grid of the future providing today and tomorrow's customers the energy they want.

Thank you for the opportunity to participate in the QER process.