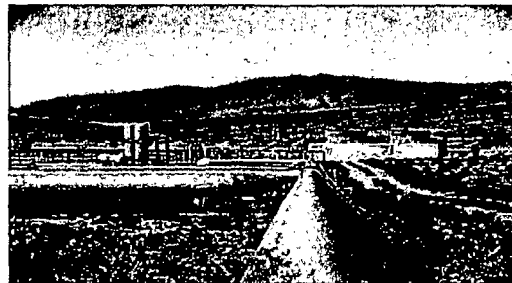
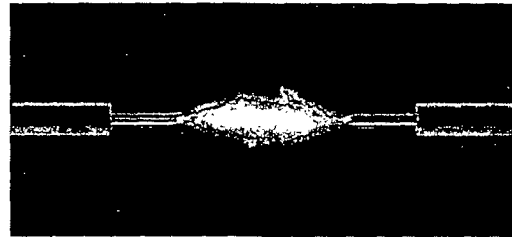


PUBLIC UTILITIES COMMISSION OF NEVADA

ENERGY CHOICE INITIATIVE FINAL DRAFT REPORT

INVESTIGATORY DOCKET No. 17-10001



APRIL 2018

FOREWORD

The idea of choice and open markets is as quintessentially American as apple pie, baseball, and jazz music. It is in our DNA to gravitate towards it. But ensuring a non-stop supply of electricity to every home, business, and governmental entity in Nevada every second of every day of the year, regardless of the weather or economy, makes it unique from other goods or services. Electricity is a basic necessity of modern life. Like air. Like water. Like food. It is so fundamental that most of us rarely pause to think about it: we just want our lights to turn on and our monthly bills to stay low. Today, Nevada enjoys on average some of the lowest electricity rates in the country, and Nevada is leading in job growth and the development of solar and renewable energy technologies.

The Energy Choice Initiative seeks to amend the Nevada State Constitution and fundamentally alter the historical framework by which Nevadans obtain and pay for their electricity by removing the ability of the Nevada State Legislature, and subsequently the Public Utilities Commission of Nevada (PUCN), to control a key component of electricity rates. The Energy Choice Initiative was approved by approximately 72 percent of Nevada voters in 2016,¹ and will appear again before voters in 2018.

The PUCN is an independent regulatory entity created by Nevada law, and it operates separately from all other state agencies—its only clients are the residents of Nevada. Thousands of pages of comments, information, and analysis, as well as 10 days of transcribed public dialogue and proceedings, regarding issues raised by Energy Choice Initiative have been reviewed by the PUCN through the course of this investigation. These records are included in Volumes 1 through 11 of the Appendix accompanying this Report.

Trying to predict the future with 100 percent accuracy is not possible. This Report does not purport to do so. Energy prices can be volatile and fluctuate—they do not stay the same for a variety of reasons, including costs of fossil fuel, weather, global conflict, and politics. Many variables exist in the analysis in this Report, and the findings could certainly change if new information became available. With this stated, much involving electricity is reasonably predictable based upon identifiable trends, objective analysis, and experience.

The findings and analysis in this Report do not advocate or take any position supporting or opposing the Energy Choice Initiative. This Report is only intended as an objective resource to help educate all Nevadans, so that informed decisions are made regarding Nevada's energy future.

Sincere regards,



JOE REYNOLDS, Chairman
Public Utilities Commission of Nevada

¹ Nevada Secretary of State, *Nevada General Election 2016—Ballot Questions*, <http://silverstateelection.com/ballot-questions/>.

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KEY FINDINGS

- Nevadans currently enjoy some of the lowest average electricity rates in the country, and Nevada is a leader in solar and renewable energy development, as well as job and business growth.
- The Energy Choice Initiative is reasonably likely to increase the average monthly electric bills of Nevadans, at least the in the short term, *i.e.*, the first 10 years. These cost increases will potentially diminish over the years as Nevada's new open-market paradigm becomes established, Nevada's economy and population grows, and the transition costs are paid off.
- Large commercial customers will likely see more immediate benefits from the Energy Choice Initiative due to the elimination of an alleged residential subsidy and reduced impact fees relating to NRS Chapter 704B.
- Ambiguous language within the Energy Choice Initiative makes it difficult to discern its full legal meaning and scope, and purported objectives of the measure appear to be in conflict with each other.
- No state has ever deregulated its energy market or made energy policy by amending its state constitution, which make the implications of the Energy Choice Initiative relatively permanent and unique to Nevada.
- Plain language of the Energy Choice Initiative removes the authority of the PUCN and, subsequently, the Nevada State Legislature to control the generation component of a bundled electricity rate. This will cause new exposure for Nevada ratepayers to market volatility and profit-driven ratemaking practices. It may also bring theoretical benefits of open market competition to Nevada.
- The Energy Choice Initiative will likely require in excess of 100 million dollars in new startup costs and, thereafter, over 45 million dollars in new annual operation and maintenance costs.
- NV Energy will likely be forced to divest its generating assets and assign its long-term power purchase contracts to new owners. Nevada ratepayers will remain liable for any financial losses incurred by NV Energy from these stranded costs, which could foreseeably exceed several billion dollars. While these stranded costs will not be new to Nevada ratepayers, they will offset any possible benefits from an open and competitive market created by the Energy Choice Initiative.
- At least 400 union electrical employees are likely to lose their jobs, and hundreds more may be negatively affected by the Energy Choice Initiative. The Energy Choice Initiative will also likely create new jobs for Nevadans, but what those jobs will be remains speculative and unestablished.
- Net Energy Metering (NEM)/rooftop solar laws and policies recently enacted through Assembly Bill 405, as well as other energy programs, will likely be negatively affected by the Energy Choice Initiative.
- The California Independent System Operator (CAISO) appears the most viable option for Nevada to participate in an organized wholesale market. Yet, this option has challenges, due to the need for bi-state legislation and changes to CAISO's governance structure to ensure Nevada's interests are represented.
- It remains an open question as to who will serve as a provider of last resort (POLR) for NV Energy's former Nevada customers in a retail market. This remains an area of concern given Nevada's diverse geography and population demographics.
- The Energy Choice Initiative can be implemented by July 1, 2023. But it will require an immediate and unprecedented commitment by Nevadans of financial, legislative, and legal resources.

INTRODUCTION

Informed and responsible decisions about electricity, and energy in general, cannot be made in a vacuum. Accordingly, it is prudent to place the results of the PUCN's investigation into the Energy Choice Initiative in Docket No. 17-10001 into their proper context by setting forth a broad overview of electricity regulation development, the history and work of the PUCN, statistics about electricity in Nevada today, as well as other relevant considerations, before addressing the specific questions raised in these proceedings.

Divergent Views about Government Regulation

Corporations exist to make money, not to protect the welfare of the public. Indeed, Adam Smith, a leader of modern capitalism theory, warned that the interests of a corporation "is always in some respects different from, and even opposite to, that of the public." See Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, 219-220 (1776). Without regulatory oversight, history has shown that left to their own devices certain corporations and marketplaces have created economic and environmental chaos and destruction. Children work in factories. Rivers catch on fire. Doctors operate without licenses. Senior citizens get cheated out of life savings. Investors are told lies. Home mortgages become upside down. Regulatory oversight arose out of necessity to serve as a governmental check on corporate greed and profits, *i.e.*, negative externalities, to protect public health and safety.

Yet, corporations have also driven some of our best efficiencies and inventions, and they employ a lot of people. History has also shown that regulation can go too far at times. John Stuart Mill, a leader in *laissez faire* economics theory, believed that "the business of life is better performed when those who have an immediate interest in it are left to take their own course, uncontrolled either by the mandate of law or by the meddling of any public functionary. The persons, or some of the persons, who do the work, are likely to be better judges than the government, of the means of attaining the particular end at which they aim." See John Stuart Mill, *Principles of Political Economy, with some of their Applications to Social Philosophy*, 952 (1848). Regulatory agencies can be run by government bureaucrats and 'paper pushers' who are more interested in outdated rules than real-world common sense and getting things done. Potentially life-saving drugs are withheld from the ill. Children are forced to get a permit before opening a lemonade stand. A construction project requires a dozen or more permits before it can break ground. Red tape delays a loan. Poorly-drafted (or interpreted) regulations can also perpetuate policies antithetical to economic growth, innovative ideas, and new technologies, which also better society and our way of life.

Balancing these competing interests and philosophies is a responsibility of the PUCN as mandated by Nevada law.² Irrespective of where one may fall in this philosophical debate, what is important to note is that regulation of electricity is unique from regulation of most any other produced goods and services.

² The PUCN has dual responsibilities. It is responsible for ensuring that any charges imposed on Nevada utility customers are "just and reasonable," see NRS 704.001(4); NRS 704.120(1), which is a statutorily-imposed standard consistent with the PUCN's responsibility to "[p]rotect, further and serve the public interest." See NRS 703.151(1). Yet, the PUCN is also legally required to balance the public interest with the interest of shareholders of public utilities to ensure that public utilities have "the opportunity to earn a fair return on their investments . . ." NRS 704.001(4). The touchstone of any PUCN proceeding is to achieve fairness and reasonableness in addressing the concerns of both the public and the utility. See *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591 (1944). Indeed, the United States Supreme Court has stated: "There must be a fair return upon the reasonable value of the property at the time it is being used for the public." *Bluefield Waterworks & Imp. Co v. Public Service Commission of West Virginia*, 262 U.S. 679, 690-91 (1923). However, the Supreme Court has explained that "[t]he ascertainment of that value is not controlled by artificial rules. It is not a matter of formulas, but there must be reasonable judgment having its basis in a proper consideration of all relevant facts." *Id.*

Electricity is Different

Electricity is a commodity, and providing it to customers is a service. It is unique in several important respects. Former NASA Astronaut Neil Armstrong, while speaking to the National Academy of Engineering, recognized the electricity grid as the top engineering achievement: “[T]he top achievement, electrification, powers almost every pursuit and enterprise in modern society. It has literally lighted the world and impacted countless areas of daily life, including food production and processing, air conditioning and heating, refrigeration, entertainment, transportation, communication, health care, and computers.”³ Armstrong, for reference, noted that our nation’s journey to the Moon was ranked twelfth.⁴ It is complex.

First and foremost, electricity has become a necessity in modern life. Like air. Like water. Like food. Electricity is essential to not only turning on our home and business lights; but also for operating such things as refrigerators, computers, cell phones, air conditioners, heaters, life-saving medical equipment, and even vehicles. Unlike, for example, cable television; nobody dies and the economy does not falter if the television does not work. As a leader in modern utility regulation theory, James Bonbright, recognized, electric public utilities provide a service that is “essential” and “vital” to “present livelihood and future social growth.”⁵ Second, while electricity is a necessity for modern life, it must be created and/or generated. Unlike air or water, to be useful electricity must be intentionally produced. Third, unlike commodities such as food or even gasoline, large-scale storage of electricity is certainly limited.⁶ Meaning, once generated, most of it must be transmitted and used. As the United States Supreme Court has recognized: “[A]ny electricity that enters the grid immediately becomes part of a vast pool of energy that is *constantly moving* in interstate commerce.”⁷ Fourth, electricity can be physically dangerous, and requires highly specialized skills and training to properly handle. Nobody dies from the shock of touching most mass-produced commodities. That is not true with electricity. Fifth, the generation, transmission, and distribution of electricity requires enormous amounts of long-term capital investment in infrastructure and planning. Often, this planning looks decades into the future and takes hundreds of millions, if not billions, of upfront investment dollars. Design and construction of generation facilities and transmission lines that span hundreds of miles cannot be done quickly or overnight. Sixth, once electricity infrastructure is built, it is fixed in its geographic location. Seventh, electricity requires on-site service technicians and engineers who can travel and repair damaged lines, breakers, or connect service day or night and in any weather condition 24 hours a day, 365¼ days of the year. Eighth, electricity can be a volatile financial commodity that has price fluctuations based upon uncontrollable natural factors, political decisions in Washington D.C., or world events such as weather, trade tariffs, or the costs of fossil fuels. Ninth, electricity must be constantly available to meet society’s growing demand at any given time. Meaning, the electric grid must not only be able to meet today’s peak usage and demand, but tomorrow’s as well. Finally, the innovations and technology surrounding electricity generation and usage are evolving at an astounding rate, whereby what may be considered cutting-edge technology just a few years ago may soon become outdated.

³ See <http://www.greatachievements.org>.

⁴ *Id.*

⁵ Bonbright, James C.; Danielsen, Albert L.; Kamerschen, David R., *Principles of Public Utility Rates*, 8-9 (1988).

⁶ *Id.* at 9 and U.S. Energy Information Administration, *Today in Energy, Design and Application of Utility-Scale Battery Storage*, <https://www.eia.gov/> (Appendix 3761-3762).

⁷ *New York v. Federal Energy Regulatory Commission*, 535 U.S. 1, 7 (2002) (emphasis added).

The Regulatory Compact and Monopoly Paradigm

Because electricity is a different type of resource, how our society has traditionally regulated it is unique as well. It has been generally viewed that electricity regulation actually favors a monopoly structure. Indeed, as the United States Supreme Court has observed, the monopoly paradigm for electricity arose because, due to “its inherent technical characteristics,” an electric public utility could not “be operated with efficiency and economy unless it enjoys a monopoly of its market.”⁸ Often, competing electric utilities in an open and competitive electricity market place have over time run each other into bankruptcy.⁹ This was not beneficial to the public and would lead to a natural monopoly by an electric utility without the safeguards of regulatory oversight.

“Regulation represents third-party intervention by a government agency as an arbitrator between the company and the customers it serves.”¹⁰ In other words, it is government involvement between corporations doing business and people. In the traditional monopoly paradigm, the electric utility gives up many of the rights and protections that a traditional private business retains, such as the ability to fix its own prices and rates and the ability to enter into business arrangements without prior government approval. In exchange, the electric utility does not have to compete for service territory and is guaranteed an opportunity to earn a reasonable rate of return on its investments.¹¹ “The nature of governmental regulation of private utilities is such that a utility may frequently be required by the state regulatory scheme to obtain approval for practices a business regulated in less detail would be free to institute without any approval from a regulatory body.”¹²

The United States Supreme Court has recognized: “[T]o offset monopoly power and ensure affordable, stable public access to a utility’s goods or services, legislatures enacted rate schedules to fix the prices a utility could charge. As this job became more complicated, legislatures established specialized administrative agencies . . . to set and regulate rates.”¹³

Role of Regulators to Protect the Public Interest

Regulation arose in the United States to protect the public interest.¹⁴ “The traditional public interest view of regulation is to protect consumers against high or discriminating prices or unreliable service.”¹⁵ It is believed that without proper regulation, no sufficient penalties for corporate misbehavior exist, and social and political power would be concentrated in the hands of private corporations.¹⁶ Regulation also exists to insulate ratepayers from market volatility and electricity price spikes. The United States Supreme Court observed: “In periods of high electricity demand, prices can reach extremely high levels as the least efficient generators

⁸ Bonbright at 18-19.

⁹ *Id.*

¹⁰ *Id.* at 6.

¹¹ *Id.* at 9 n.5.

¹² *Jackson v. Metropolitan Edison Co.*, 419 U.S. 345, 357 (1974).

¹³ *Verizon Communications Inc v. Federal Communications Commission*, 535 U.S. 467, 477 (2002) (internal citation omitted).

¹⁴ Bonbright at 28.

¹⁵ *Id.* at 33.

¹⁶ *Id.* at 40.

