

Question 3: The Energy Choice Initiative

Voter Information Guide

Background

This voter information guide is an abridged version of the Guinn Center’s Technical Report, “Restructuring the Electricity Market in Nevada? Possibilities, Prospects, and Pitfalls” that reviews the issues regarding the ballot initiative, Question 3: The Energy Choice Initiative, which voters will consider in the November 2018 General Election. This document is designed to directly answer some of the questions that voters may have as they evaluate the arguments for and against Question 3.

In compiling our report, the Guinn Center conducted a review of federal energy data and more than two dozen interviews with energy industry experts around the country, and reviewed research documenting the experiences of other states that restructured their electricity markets (and adopted “energy choice”). Given that the evidence we reviewed is comparative and historical, rather than predictive, we cannot demonstrate conclusively that energy choice (Question 3) is either “good” or “bad” for Nevada. That can be known only with the wisdom of hindsight. The Guinn Center notes, however, that the transition to a restructured (or “energy choice”) electricity market in other states was characterized by variability in rate behavior, implementation challenges, and, for residential ratepayers, increased uncertainty resulting from greater exposure to wholesale electric prices.

Summary of Findings

Below, we summarize our findings, which we discuss in detail in the Guinn Center’s Technical Report, “Restructuring the Electricity Market in Nevada? Possibilities, Prospects, and Pitfalls.” Our key findings are as follows:

Rate Behavior

- Restructuring the electricity market (which would happen if Question 3 is approved by a majority of voters) may lead to either increases or decreases in electric rates; evidence reveals the experiences of other restructured states have been uneven. Most states that pursued restructuring (energy choice) implemented some form of rate caps, rate freezes, and/or rate reductions to stabilize markets and protect consumers through the transition process to a fully competitive market. When the rate caps, freezes, and/or reductions expired, some ratepayers experienced price shocks.
- In a restructured market with energy choice, the wholesale price of natural gas is one of the most important determinants of customer electricity rates. While wholesale electric costs influence electric rates in both traditionally regulated markets and restructured markets, consumers are exposed more directly to changes and volatility in commodity pricing (e.g., natural gas) under restructured markets.
- In Nevada, under current State law, the monopoly utility (NV Energy) cannot profit from fuel and purchased power costs. However, in energy choice states, the state utility regulatory body does

not retain its authority over pricing, and the Federal Energy Regulatory Commission (FERC) does not have authority over sales at retail. Under energy choice, the Public Utilities Commission of Nevada likely would no longer be able to intervene to protect consumers against higher rates, as that could undermine the intent of the initiative petition, which requires that the Nevada Legislature establish “an open, competitive retail electric energy market.”

- Market design plays an important role in restructured markets. In some restructured states, competition has not flourished for residential customers as originally intended, and/or many residential customers have experienced electric rate price spikes resulting from the expiration of rate caps and fluctuations in wholesale market energy prices.

Renewable Energy

- There is no correlation between restructuring electricity markets and increased renewables. And Question 3 does not explicitly require that more renewables are integrated onto the grid.
- New solar generation projects (up to one gigawatt [gW]) may come online irrespective of whether a majority of Nevada voters approve Question 3.

Consumer Impact

- Residential consumers, who typically are unfamiliar with the energy choice structure, can be disadvantaged under restructured markets in the absence of strong consumer protection regulations. Across multiple states, many consumers have been enticed by low teaser rates offered by electric suppliers to sign up for variable-rate electricity contracts, but were unaware that their bills could increase at any time, and often did, as market conditions changed.

Implementation

- Experience suggests that implementation of a restructured market has not followed a simple, straightforward path. The transition to a restructured market has required legislators to “tweak the laws” and regulators to issue new orders, so that unanticipated outcomes and unintended consequences could be addressed.
- Again, Question 3: The Energy Choice Initiative seeks to restructure Nevada’s electricity market through an amendment to the *Nevada Constitution*. In contrast, all other states, with the exception of one, did so through legislation; New York restructured its electricity market through a regulatory order issued by its Public Service Commission.

Now, we answer some of the questions that voters may have as they evaluate the arguments for and against Question 3.

1. What is Question 3: The Energy Choice Initiative?

Question 3: The Energy Choice Initiative is a statewide constitutional ballot initiative that will be placed before Nevada's registered voters at the November 6, 2018, General Election. Question 3 seeks to amend the *Nevada Constitution* by adding a new section to its Declaration of Rights regarding the provision of electric utility service in Nevada.¹ Question 3 reads:

Shall Article 1 of the *Nevada Constitution* be amended to require the Legislature to provide by law for the establishment of an open, competitive retail electric energy market that prohibits the granting of monopolies and exclusive franchises for the generation of electricity?²

2. Why is this measure coming to the voters?

The Nevadans for Affordable Clean Energy Choices Political Action Committee (PAC) circulated the original petition to obtain the required number of signatures to appear initially on the 2016 ballot.³ In 2016, Question 3 passed in the General Election.⁴ Because initiative petitions that propose to amend the *Nevada Constitution* require passage by the voters in two successive elections, Question 3 is on the ballot again in the 2018 general election.

3. If Question 3: The Energy Choice Initiative passes, what would it do?

If approved, the Nevada Legislature and the Governor must establish a law to provide for an open, competitive retail electricity market by July 1, 2023.⁵ If not approved, the *Nevada Constitution* would not be amended, and the status quo would remain in place.

To understand the potential implications of Question 3, the process of delivering electricity to the end-user (e.g. home, business, etc.) under the current market structure must be understood. Briefly, power plants—regardless of whether they use natural gas, coal, or renewables—generate electric power, which is delivered over transmission lines to electrical substations; from there, electricity is carried over the distribution system to customers.⁶ The administrative costs associated with electricity delivery, such as metering, billing, and customer service, amongst others, are referred to as retailing.⁷

Historically, the four components (i.e., generation, transmission, distribution, and retailing) were bundled together, with the delivery functions coordinated by a vertically integrated electric company, or utility.⁸ This means that "...the utility owns all levels of the supply chain." In Nevada, the vertically integrated utility that serves 90 percent of the state's customers is NV Energy, which provides a monopoly utility service.

Question 3 would **restructure** the electricity market in Nevada and may require the monopoly utility (e.g., NV Energy) to unbundle its services. Restructuring is often referred to as retail choice, energy choice, customer choice, and/or direct access. If Question 3 passes, energy choice would permit customers to purchase electricity from competitive suppliers.⁹ It would prevent a single provider from owning the exclusive right to sell electricity in a designated service territory, which is currently permitted under Nevada law.

Question 3 contains specific directives to the Nevada Legislature, including, but not limited to:

- 1) forming open and competitive electricity markets;
- 2) affording meaningful choices among different [electricity] providers;
- 3) minimizing economic and regulatory burdens to promote competition and choices in the electric energy market; and
- 4) eliminating the grant of monopolies and exclusive franchises for the generation of electricity.¹⁰

4. What would it mean to have a restructured (energy choice) electricity market in Nevada?

Electricity markets are complex, and restructuring may add new actors while retaining some of the preexisting structure—including but not limited to independent power producers, utilities, retail suppliers, regulators (e.g., public utility commissions), independent system operators (ISOs) and end-use customers (businesses, residences). If voters approve Question 3, we would expect, in theory:

- 1) The monopoly utility (e.g., NV Energy) likely would no longer manage or be involved in the generation of electricity.
- 2) New participants could enter the electricity market.
- 3) Nevada would have to participate in an organized wholesale market.

We will discuss each of these implications briefly in the section below.

#1: Under a restructured market (with energy choice), the monopoly utility likely would no longer manage or be involved in the generation of electricity.

Restructuring the electricity market to open up the generation of energy to many suppliers means that a vertically integrated utility (e.g., NV Energy) theoretically would sell its generation assets through a process known as divestiture (see Guinn Center's Technical Report for a discussion of divestiture and stranded assets).¹¹ Generation assets can include power plants and long-term power purchase agreements (PPAs), or contracts between electricity generators and electricity buyers for additional sources of power.

Currently (i.e., under monopoly utility service), the utility coordinates all components of electricity delivery and is regulated by a public utilities commission (i.e., Public Utilities Commission of Nevada). The utility determines resource adequacy to meet demand and thus is able to deliver electric service with reliability.¹² This framework would change in a restructured market.

#2: Energy (retail) choice would allow new participants in the market.

Under energy choice, there would be a new way of doing business and there could be new participants in the market, including: (1) independent power producers (IPPs), or owners of power plants and other generation assets; (2) competitive suppliers, which are brokers between the wholesale electric market and customers in the retail market; and (3) an independent system operator (ISO), which manages sales in an organized wholesale market and coordinates generation with the other components of electricity delivery—transmission and distribution—to ensure resource adequacy and reliability.

In a restructured market, the responsibility for electricity supply is separated into retail (or electricity) suppliers and IPPs. Electric suppliers typically are licensed by the state, and under energy choice, customers can choose amongst suppliers in the market.¹³ These retail suppliers act as brokers between the end-use customer and independent power producers (IPPs). IPPs may construct new generation facilities, enter into long-term PPAs, and/or own generation assets previously held by the utility but sold through divestiture.

#3: Energy choice gives organized wholesale electric markets greater prominence than under a traditional model of electricity delivery.

In our current model of electricity delivery, a vertically integrated utility (e.g., NV Energy) participates in **traditional** wholesale markets where utilities enter into both short- and long-term bilateral contracts to trade electric power.¹⁴ A utility and a generation facility enter a short-term transaction to procure power when the utility confronts resource inadequacy; a long-term transaction is known as a power purchase agreement (PPA). Generally, vertically integrated utilities operating in traditional wholesale markets participate in all but the day-ahead market and real-time market.¹⁵ NV Energy joined the western Energy Imbalance Market, which provides access to the real-time market.¹⁶

In contrast, if Question 3 passes, actors would be required to participate in an **organized** wholesale market, which is coordinated by the independent system operator (ISO) or regional transmission organization (RTO) (see Guinn Center Technical Report for a detailed discussion of wholesale markets and options available to Nevada).¹⁷ In an organized wholesale market (after a state has embraced energy choice), traditional power purchasing agreements (PPAs) are permitted; however, electricity prices are determined through auction-based market pricing, real-time (“spot market”) pricing, and short-term and long-term bilateral contracts. Purchases in wholesale markets are made over various time frames, such as year-ahead, month-ahead, days-ahead, day-ahead, and real-time.

Independent power producers (IPPs) operate in the organized wholesale market, and electric suppliers broker the transactions between the IPPs and the end-use customer.¹⁸ Electricity (retail) suppliers act as an intermediary between the wholesale electric market and the retail market, as most ratepayers normally do not conduct transactions directly with the IPPs.¹⁹ (The exception may be large commercial and industrial ratepayers.)²⁰

5. Have other states restructured their electricity markets?

Yes; 22 states restructured their markets (i.e., energy choice for residential, commercial, and industrial customers), and two states are considering it. Seven states later repealed it (at least, in part), and two to four are currently considering ways to repeal it. The combination of technological advances (e.g., demand side management, distributed generation), policy and regulatory actions, and the belief that choice would lead to lower electricity costs led several states to consider restructuring their electricity markets in the mid-1990s and through the early 2000s.

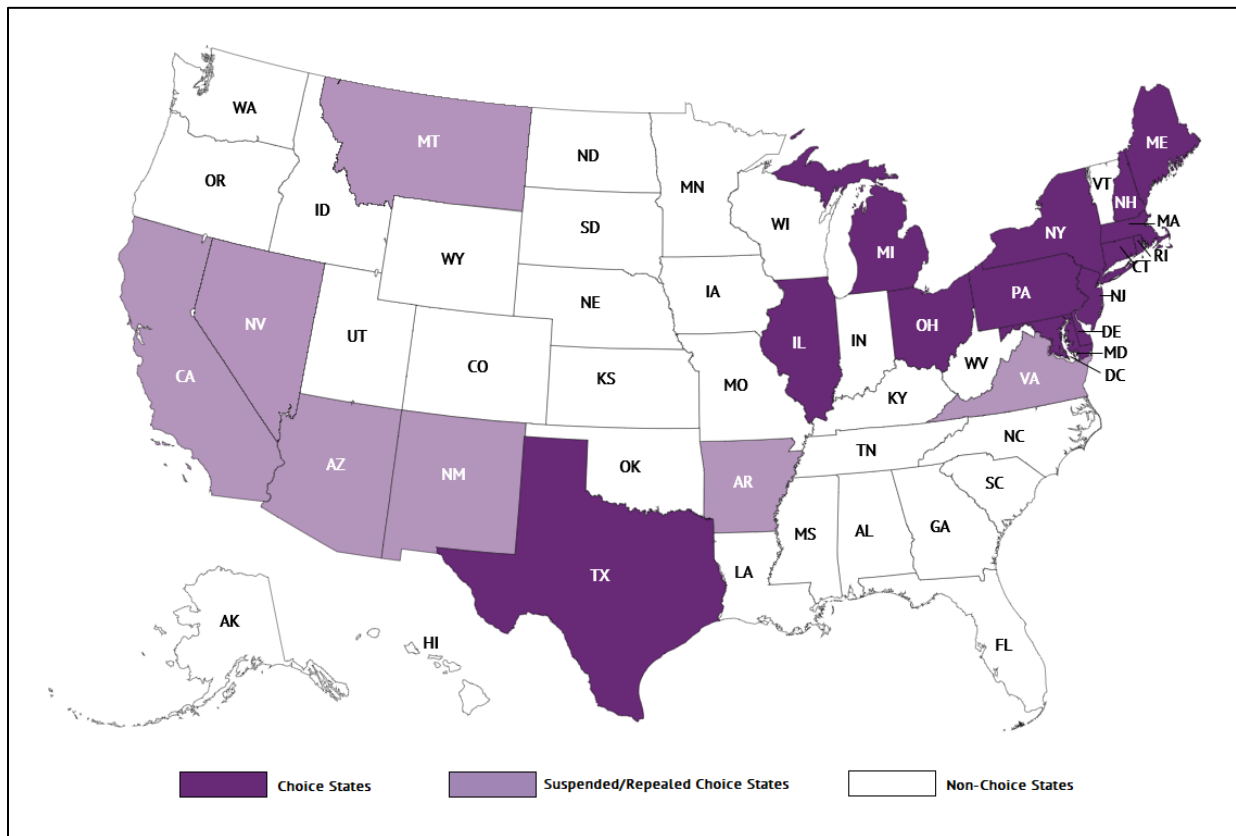
Figure 1 presents a map of states that provide or have provided retail electric (energy) choice to residential ratepayers. The figure displays “Choice States,” the current states that permit residential retail electric choice, “Non-Choice States,” the current states that do not permit residential retail

electric choice, and “Suspended/Repealed Choice States,” the states that permitted residential retail electric choice but do not currently do so by virtue of suspension or repeal.

Some states have partial access to choice (including but not limited to those that suspended or repealed residential retail electric choice).²¹ Among these states is Nevada, which allows nongovernmental commercial or industrial end-use customers with average annual loads (i.e., demand) of one megawatt (mW) or more in the service territory of an electric utility to procure energy from an alternative supplier (in Nevada, they must pay an exit fee to the utility to do so and continue to pay the utility for wires service).²² For simplicity, the map does not show states with partial access to electricity choice for commercial and industrial (C&I) customers.

As Figure 1 indicates, current residential energy retail electric choice states tend to be concentrated in the Northeast and Upper Midwest, with Texas as the exception in the Intermountain West. It has primarily been Western states that suspended or repealed their residential energy choice programs.

Figure 1. Residential Retail Electric Choice States



6. What are the primary arguments offered by supporters and opponents of Question 3?

The primary arguments associated with electricity market restructuring (energy choice) relate to (1) electric rate behavior, and (2) whether a restructured market will promote or hinder the development of renewables in Nevada. The primary arguments made by supporters and opponents of Question 3 are summarized below.

YES on 3: “Energy choice will lower electric bills for all Nevadans.”

NO on 3: “Dismantling Nevada’s existing electricity system would cost billions of dollars....These costs would be paid for by all Nevadans in the form of higher electricity rates....”

YES on 3: “Energy choice will expand Nevada’s clean energy options.”

NO on 3: “Threatens Nevada’s progress toward a clean energy future.”

7. What will happen to my electricity rates if Question 3 passes?

Electricity rates reflect different inputs including fuel prices, weather, and regulatory costs, among others. Comparisons of energy prices over time and across states are challenging, if not impossible.

The evidence on the effect of restructuring (energy choice) on electric prices is mixed and inconclusive. It is impossible to predict what will happen to electricity rates (and a ratepayer’s electricity bill) should Question 3 pass. Our examination of other states’ experiences with rates demonstrates that some customers benefit from energy choice, while others encounter adverse effects. Moreover, our analysis suggests that restructuring exposes ratepayers to the imperfections and challenges of the wholesale electric market, lending to greater uncertainty around rate behavior.

Table 1 presents U.S. Energy Information Agency (EIA) data on the annual average retail price of electricity for the Intermountain West states in 2017 by end-use sector (see Technical Report for table of all 50 states).²³ Note that annual averages are useful in smoothing out seasonal variation but do not capture point-in-time snapshots.²⁴

Table 1. Annual Average Retail Price of Electricity (¢/kWh), Intermountain West States (2017)

Annual Average Retail Price of Electricity (¢/kWh), Intermountain West States (2017)				
	Residential	Commercial	Industrial	All Sectors
Arizona	12.50	10.58	6.45	10.71
California	18.24	15.89	12.87	16.14
Colorado	12.13	9.95	7.29	9.94
Nevada	12.00	7.98	6.13	8.76
New Mexico	12.92	10.27	6.01	9.64
Texas	11.18	8.31	5.49	8.55
Utah	11.04	8.74	6.12	8.66
United States	12.90	10.68	6.91	10.54

Some evidence for lower rates. The author of one discussion paper stated:

The evidence simply does not support critics' claims that there have been dramatic price increases in restructured states relative to states that have maintained more traditional forms of regulation.... there is no clear pattern in the restructuring status of the states that have seen the greatest increases in retail prices since the mid-1990s. Among the 28 states in which some form of restructuring was implemented, 10 (plus the District of Columbia) experienced increases in average retail prices from 1995 to 2006 that outpaced the national average and 18 states had increases (or even decreases) below the national average. Among the non-restructured states, 11 had price increases above the national average and 11 had below average price increases.²⁵

A report available on the official ECI (Yes on Question 3) website, which uses EIA data, states that, "As a group, Customer Choice Jurisdictions outperformed Monopoly States on price, with average prices increasing less than inflation in competitive markets and far exceeding inflation under monopoly regulation."²⁶ Another report, which also relies on EIA data, finds that: (1) between 2008 and 2015, half of the restructured states enjoyed price decreases, while just three non-restructured states experienced the same; (2) The compound average growth rate was higher in non-restructured states (3.07 percent) than in restructured states (2.49 percent); and (3) in Michigan, (which tweaked its legislation so that residential retail electric choice technically is allowed by law but currently does not exist in practice) consumers would have paid \$11.3 billion less between 2009 and 2015 if they had access to the same market-based rates as Illinois.²⁷

In testimony before the Governor's Committee on Energy Choice (CEC), John Hanger, former Secretary of Planning and Policy and Pennsylvania Public Utilities Commission (PUC) Commissioner, asserted the following: (1) residential and commercial customers in Philadelphia and Pittsburgh pay 40 percent to 56 percent less (in real or inflation-adjusted dollars) than they did in 1996; (2) the average statewide electricity price is at the national average, not "well above it"; and (3) residential customers saved \$818 million in 2016 as a result of retail competition.²⁸

Some evidence for higher rates. On the other hand, another body of evidence suggests that restructuring led to increased electric prices in states that transitioned to a choice model. One report stated, "Of the 11 states and the District of Columbia (D.C.) that have effectively restructured their electricity markets and allow "free market" competition, electricity prices have gone up over four times faster, after restructuring than before restructuring, relative to U.S. electricity prices."²⁹

A study on restructuring in the Texas market, using EIA data for 2002-2014, indicates that Texans in non-choice areas paid lower residential electric rates compared to their counterparts in restructured (or choice) areas.³⁰ Moreover, "Texans living in deregulated [choice] areas would have saved nearly \$25 billion dollars in lower residential electricity bills from 2002 through 2014 had they paid the same average prices during that period as Texans living outside deregulation [non-choice]. This 'lost savings' amounts to more than \$5,100 for a typical household."³¹ The report finds, however, that the difference in rates between the two areas has been converging since 2011; in 2014, the percentage differential between choice and non-choice areas was the smallest since restructuring.³²

In sum, the research is inconclusive. On one hand, evidence supports claims that restructuring (energy choice) resulted in lower electricity prices. Alternatively, researchers also find that restructuring contributes to increased electricity prices. Most studies rely on EIA data, however, which carries significant limitations, as discussed in the Guinn Center Technical Report.³³

8. Are there other factors in a restructured or energy choice market that could affect electric rates?

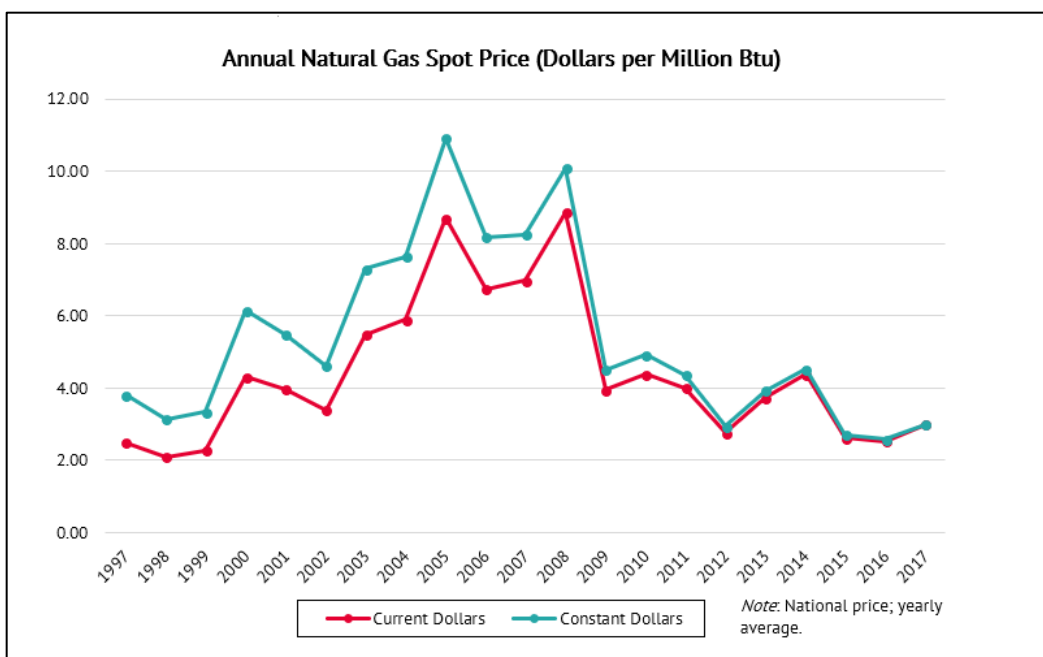
Yes. Research and analysis of other states’ experiences suggests that two major factors could impact electric rates in a restructured market: (a) Wholesale Electric Prices, and (b) Rate Caps/Freezes/Reductions. Other issues that could influence rates include divestiture/stranded assets and participation in an organized wholesale market (see Guinn Center Technical Report for more detail).

a. Wholesale Electric Prices. All ratepayers—including those in markets with vertically integrated utilities and in energy choice markets—are vulnerable to changes in fuel costs and market volatility. The process and the pricing differ with market structure, however. Research suggests that there is greater exposure under energy choice, as a competitive market design implies a higher correlation between wholesale electric prices and retail rates. This can benefit consumers when wholesale electric prices are low but disadvantage them when wholesale electric prices are high.

While weather and regulatory policies impact rates in energy choice markets, perhaps nothing intertwines with energy choice more than wholesale costs, specifically, natural gas. Even a small share of exposure to natural gas pricing can impact rates.

Natural gas prices have been volatile historically, as shown in Figure 2, which displays the national annual average natural gas spot price from 1997-2017. When natural gas prices are low, consumers in restructured states—by virtue of their increased exposure to the wholesale market—realize benefits from lower fuel costs.³⁴ But when they rise, consumers may pay higher electricity bills.³⁵

Figure 2. Annual Natural Gas Spot Price (Dollars per Million Btu)



Customers of vertically integrated utilities, such as NV Energy, are not immune to fluctuations in commodity prices (i.e. natural gas, renewables, etc.).³⁶ For instance, NV Energy, through its participation in the western Energy Imbalance Market, has access to the real-time market, which means that spot purchases, when necessary, can be very expensive.³⁷ However, under current law, the utility (NV Energy) cannot profit from fuel and purchased power costs. Moreover, if the PUCN were to find that pass-through rates of wholesale costs were unduly burdensome, it could impose a regulatory remedy.³⁸ As such, customers currently may be less exposed to the swings of wholesale commodity prices than if the utility were not regulated.

In contrast, consumers are exposed more directly to wholesale electric costs in energy choice states, as the auction process becomes more deterministic in pricing. IPPs cannot remain in business if they cannot cover their costs, so when fuel costs rise, they submit higher bids into the market; the clearing price in an organized wholesale market reflects these costs.³⁹ IPPs can also profit under energy choice, so regardless of whether costs are low or high, they can mark up prices in service of profit maximization.⁴⁰ Under energy choice, the PUCN could no longer intervene to protect consumers.

In summary, electric rates closely correlate with natural gas and commodity prices in restructured markets. If Question 3 passes, consumers could pay lower rates if commodity prices remain low and higher rates if commodity prices rise. Consumers could also be more exposed to rate fluctuations.

b. Rate Caps, Rate Freezes, and Rate Reductions. With the exception of Maine, all states that pursued restructuring (energy choice) implemented some form of rate caps, rate freezes, and/or rate reductions.^{41, 42} Given that consumers might face unexpected rate increases during the initial phase of restructuring, rate caps, freezes, and/or reductions were designed to stabilize markets, protect consumers, and smooth the transition to a fully competitive market.^{a, 43}

While consumer groups largely favor rate caps, freezes, and/or reductions, critics find them problematic, arguing that they do not permit consumers to realize actual market prices, or at least prices closer to the wholesale price of electricity.⁴⁴ Furthermore, many states found that capped rates discouraged competitive suppliers from entering the market, as the caps were often set below market rates, creating a disincentive to competition.⁴⁵ As one report notes, "...none of the retail electricity market designs yield instant price reductions for customers. States that held prices artificially low during the transition to a competitive market may have seen lower prices initially; however, the long-run effect of artificially depressed prices is a misallocation of resources and an inefficient electricity market. Consumers have no incentive to switch to an alternative electricity provider and providers have no incentive to enter the market to serve residential customers."⁴⁶

In short, electricity rates are based on several different factors. Research suggests that wholesale electric prices and market design (i.e. rate caps, freezes and reductions) influence rate behavior, and

^a This discussion is relevant because research published prior to the expiration of rate caps may be biased, as the depressive effects of rate caps, freezes, and reductions may skew results. When rate caps, freezes, and reductions expire, electricity rates should theoretically align more closely with wholesale costs.

that the effects are amplified in restructured (“energy choice”) markets. For a summary of state-specific outcomes, see Section III of the Guinn Center Technical Report.

9. If Question 3 passes, will Nevada generate more energy from renewable sources?

Not necessarily. Here’s why:

1. Question 3 does not explicitly require that the electricity system integrate more renewables onto the grid.^b
2. Research suggests that there is no direct relationship between restructuring (“energy choice markets”) and renewable energy. The type of retail market model in a given state matters less than policy choices, such as a state’s Renewable Portfolio Standard (RPS).
3. Under a restructured market, the independent system operator (ISO) manages the organized wholesale markets and the auction process if Question 3 passes, the choice of organized wholesale market/ISO Nevada joins could influence whether Nevada consumes more renewable energy, as the proposed markets’ fuel portfolios differ considerably.
4. Increased renewable energy generation assets may come online regardless of whether Question 3 passes in November 2018.

10. Will Question 3 allow Nevada to expand net metering and rooftop solar?

Net metering is a process in which a purchased or leased solar system (typically, rooftop solar) may produce excess energy, and in such cases, if what is produced exceeds more than what is used in a billing period, the excess energy returns to the grid and becomes available to other customers; in the next billing cycle in which consumption is greater than production, these customers receive a credit on their electricity bills.⁴⁷

At present, it is not clear what will happen to net metering customers in Nevada if Question 3 passes. Central to this issue are questions of existing law, the obligations of the incumbent utility (e.g., NV Energy), and the PUCN’s authority under energy or retail electric choice.

In the 79th (2017) Legislative Session, Assembly Bill (AB) 405 was enacted, which established a rate structure for net metering customers, effective June 15, 2017.⁴⁸ The PUCN can approve draft orders on rates and rules for net metering customers. It is not clear that approval of Question 3 would invalidate this preexisting statutory authority. But, if Question 3 passes, NV Energy likely would no longer manage or be involved in the generation of electricity and would not provide retail rates. Thus, no entity in the market would provide the net metering service. In the absence of further

^b On July 13, 2018, the Nevada Secretary of State announced that the Renewable Energy Promotion Initiative (Question 6) qualified for consideration by voters at the November 6, 2018, General Election. If a majority of voters approve Question 6, Nevada would be required to double its Renewable Portfolio Standard from 25 percent by 2025 to 50 percent by 2030. (*Source*: Associated Press. “Renewable Energy Ballot Measure Qualifies for Nevada Ballot.” Reno Gazette Journal. July 13, 2018. Available: <https://www.rgj.com/story/news/politics/2018/07/13/renewable-energy-ballot-measure-qualifies-nevada-ballot/783390002/>.)

clarification, the right to energy choice seems incompatible with the rights guaranteed to net metering customers.

In theory, if Question 3 passes, the Nevada Legislature or the PUCN could enforce net metering rules on a new competitive supplier that wants to participate in the market. But, it is difficult to determine or predict what options will be available to individuals who currently participate or are interested in participating in net metering should Question 3 pass.

11. What has been the experience of consumers in other restructured states?

Consumers in states with restructured (energy choice) markets have experienced mixed results. Irrespective of market structure, the procurement of electricity has different impacts across ratepayer classes.

Large commercial and industrial (C&I) customers tend to enjoy lower rates, relative to their residential counterparts, under both vertically integrated utilities and energy (retail electric) choice.⁴⁹ Data indicates that, in restructured states, C&I take-up of the competitive supply option exceeds that of residential consumers.

Residential and small commercial ratepayers, however, typically are not knowledgeable about electricity procurement. As evidence from other states shows, these informational disadvantages contribute to market manipulation and customer exploitation.

The transaction costs—the time and effort required to investigate retail electric choice options—may exceed the benefits in cost savings for the average residential consumer. Capacity, information, knowledge, and sophistication, which are instrumental to large commercial and industrial (C&I) customers' ability to benefit from a restructured market, tend not to be hallmarks of residential and small commercial customers, at least with respect to energy decision making. Unless a given customer previously resided in an energy choice state, that individual's typical encounter with electricity procurement is what the vertically integrated utility has provided to him. Learning curves can be steep as well.

According to a website that helps customers sign up for electric service in restructured states, six common issues figure in the most recorded complaints: (1) unknown fees; (2) poor customer service; (3) meter reading; (4) slamming and cramming ("Cramming is the illegal act of placing misleading charges on your bill that you did not agree to. Slamming is the process of switching your energy service to another provider without your permission[.]"); (5) switch hold rules, or the inability to switch retail providers until a back bill is paid in full; and (6) fluctuating prices.⁵⁰

The last of these, fluctuating prices, is where informational disadvantages are greatest for residential (and small commercial) customers. A recurring theme is the lack of consumer knowledge regarding the differences between variable-rate and fixed-rate contracts. When consumers sign up for variable-rate contracts, they are more exposed to unexpected fluctuations in electric rates. For a comprehensive overview of customer experiences, see our Technical Report. We caution the reader not to interpret these experiences as predictive for Nevada should Question 3 pass. The intention

simply is to report the consumer impact in other states so that Nevada's residents are aware of some potential pitfalls.

12. If Question 3 passes, how soon will I be able to choose my energy supplier?

If Question 3 passes in November 2018, the Nevada Legislature would be required to establish an open, competitive electricity market by July 1, 2023. Other states' experiences show that it could take longer before market issues are fully addressed. One stakeholder noted that restructuring in Pennsylvania was a "16-year process."⁵¹ Many states that restructured had to enact multiple pieces of legislation and/or issue regulatory orders to address the unintended consequences of restructuring; in 2006, Michigan's Public Service Commission, for example, had to issue 40 regulatory orders to "further establish and implement the framework" for its energy choice program.⁵² Many implementation hurdles required an expanded role for the government.

13. Have other choice states restructured their electricity market through their state constitutions?

Passage of Question 3 would restructure Nevada's electricity market through an amendment to the *Nevada Constitution*. In contrast, all other states, with the exception of New York, which restructured its electricity market through a regulatory order issued by its Public Service Commission, did so through legislation.⁵³

If approved, Question 3 would enshrine electric utility service provision as a right in the *Nevada Constitution*. It states that, "...every person, business, association of persons or businesses, state agency, political subdivision of the State of Nevada, or any other entity in Nevada has the right to choose the provider of its electric utility service, including, but not limited to, selecting providers from a competitive retail electric market, or by producing electricity for themselves or in association with others, and shall not be forced to purchase energy from one provider."⁵⁴

The Nevada Legislature allows investor-owned utilities in Nevada to be monopolies, granting the utility exclusive franchise over a designated service territory.⁵⁵ This suggests that, historically, electric utility service has been understood as a policy or regulatory matter in Nevada, not a constitutional one.

Using the *Nevada Constitution* as a regulatory tool forces the Nevada Legislature to proceed with restructuring. Even if legislators find that restructuring is infeasible, the constitutional imperative takes precedence. Should Nevadans become concerned about the prospects of restructuring, they would have to repeal the constitutional amendment with another constitutional amendment. This would entail circulation of a new petition to obtain the requisite number of signatures to appear on the ballot and then passage in two successive elections.

Appendix A: Annual Average Retail Price of Electricity (¢/kWh), 2017⁵⁶

	<u>Residential</u>	<u>Commercial</u>	<u>Industrial</u>	<u>All Sectors</u>
Alabama	12.61	11.62	6.23	9.89
Alaska	21.57	19.46	16.59	19.52
Arizona	12.50	10.58	6.45	10.71
Arkansas	10.22	8.44	5.93	8.18
California	18.24	15.89	12.87	16.14
Colorado	12.13	9.95	7.29	9.94
Connecticut	20.31	16.10	13.31	17.62
Delaware	13.44	9.95	7.70	10.99
District of Columbia	12.93	11.68	8.25	11.81
Florida	11.85	9.61	7.90	10.65
Georgia	11.80	9.98	5.82	9.75
Hawaii	29.50	26.82	22.92	26.07
Idaho	10.11	8.02	6.69	8.30
Illinois	12.70	8.87	6.37	9.33
Indiana	11.95	10.30	7.39	9.61
Iowa	12.60	9.62	6.31	8.92
Kansas	13.27	10.49	7.49	10.58
Kentucky	10.64	9.70	5.58	8.44
Louisiana	9.51	8.91	5.42	7.75
Maine	15.96	12.14	9.09	12.94
Maryland	13.99	10.76	8.32	12.00
Massachusetts	18.92	14.88	13.48	16.14
Michigan	15.47	11.02	7.32	11.39
Minnesota	13.19	10.58	7.73	10.53
Mississippi	11.19	10.30	6.12	9.19
Missouri	11.27	9.32	7.06	9.83
Montana	11.11	10.20	5.15	9.02
Nebraska	10.98	8.98	7.66	9.16
Nevada	12.00	7.98	6.13	8.76
New Hampshire	19.22	14.75	12.33	16.16
New Jersey	15.69	12.31	10.16	13.38
New Mexico	12.92	10.27	6.01	9.64
New York	18.04	14.76	5.94	14.78
North Carolina	11.12	8.56	6.11	9.15
North Dakota	10.40	9.18	8.62	9.26
Ohio	12.37	9.97	6.69	9.71
Oklahoma	10.48	7.97	5.27	8.12
Oregon	10.71	8.88	6.19	8.98
Pennsylvania	14.33	8.99	6.75	10.16
Rhode Island	18.30	15.24	14.58	16.44
South Carolina	12.78	10.49	6.09	9.83
South Dakota	11.68	9.58	7.80	9.98
Tennessee	10.65	10.50	6.03	9.54
Texas	11.18	8.31	5.49	8.55
Utah	11.04	8.74	6.12	8.66
Vermont	17.65	14.61	10.08	14.57
Virginia	11.67	8.07	6.67	9.28
Washington	9.60	8.51	4.66	7.94
West Virginia	11.62	9.57	6.64	9.00
Wisconsin	14.68	11.08	7.79	11.05
Wyoming	11.41	9.75	6.91	8.29
United States	12.90	10.68	6.91	10.54

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The Kenny C. Guinn Center for Policy Priorities is a 501(c)(3) nonprofit, bipartisan, independent policy institute focused on providing fact-based, relevant, and well-reasoned analysis of critical policy issues facing Nevada and the Intermountain West. The Guinn Center engages policy-makers, experts, and the public with innovative, data-driven research and analysis to advance policy solutions, inform the public debate, and expand public engagement.

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- ¹⁰ Nevada Secretary of State. 2016. "Statewide Ballot Questions: To Appear on the November 8, 2016 General Election Ballot: Initiative Petition - Constitutional Amendment: THE ENERGY CHOICE INITIATIVE." Page 42. Available: <https://www.nvsos.gov/sos/home/showdocument?id=4434>.
- ¹¹ The incumbent utility's assets become "stranded" through the divestiture process. Assets may be sold for a loss, resulting in stranded costs, or they may be sold for a gain, resulting in negative stranded costs (i.e., stranded benefits). See: Guinn Center. 2017. "Restructuring the Electricity Market in Nevada? Possibilities, Prospects, and Pitfalls."
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- ¹⁶ "The California ISO's western Energy Imbalance Market (EIM) is a real-time bulk power trading market...[.]" *Source:* <https://www.westerneim.com/Pages/About/default.aspx>; Berkshire Hathaway Energy. "NV Energy Enters the Western Energy Imbalance Market." December 1, 2015. Available: <https://berkshirehathawayenergyco.com/news/nv-energy-enters-the-western-energy-imbalance-market>

¹⁷ See: Guinn Center. 2017. “Restructuring the Electricity Market in Nevada? Possibilities, Prospects, and Pitfalls.”

¹⁸ Guinn Center conversation with industry expert.

¹⁹ Guinn Center conversation with industry expert.

²⁰ Guinn Center conversation with industry expert.

²¹ **Effective Date of Suspension or Repeal:** **Arizona:** January 27, 2004. *Source* (for year): ASU Energy Policy Innovation Council. 2013. “An Introduction to Restructuring of Electricity Markets.” Arizona State University. Available: https://energypolicy.asu.edu/wp-content/uploads/2012/03/AZ-restructuring-status_-final.pdf. *Source* (for reference to actual date per Arizona Court of Appeals): Ariz. Ct. App. 2004. “Phelps Dodge et al. v. Az. Corp. Comm’n: CV 01-0068.” Available: <http://www.azcourts.gov/Portals/89/opinionfiles/CV/CV010068.pdf>. **Arkansas:** February 21, 2003. *Source:* Arkansas State Legislature. 2003. “HB1114 - An Act to Repeal Chapter 19 of Title 23 and to Reform Electric Utility Regulation.” Available: <http://www.arkleg.state.ar.us/assembly/2003/R/Pages/BillInformation.aspx?measureno=HB1114>. **California:** September 20, 2001. *Source:* Channele Carner. 2003. “Status of State Electric Industry Restructuring Activity – as of February 2003 –.” U.S. Department of Energy, U.S. Energy Information Administration. Available: <http://large.stanford.edu/publications/coal/references/docs/restructure.pdf>. **Montana:** October 1, 2007. *Source:* Montana Legislature. 2007. “Detailed Bill Information: HB 25, Generally Revise Electric Industry Restructuring Laws.” Available: [http://laws.leg.mt.gov/legprd/LAW0210W\\$BSIV.ActionQuery?P_BILL_NO1=25&P_BLTP_BILL_TYP_CD=HB&Z_ACTION=Find&P_SESS=20071](http://laws.leg.mt.gov/legprd/LAW0210W$BSIV.ActionQuery?P_BILL_NO1=25&P_BLTP_BILL_TYP_CD=HB&Z_ACTION=Find&P_SESS=20071). **Nevada:** Before July 1, 2003. *Source:* Channele Carner. 2003. “Status of State Electric Industry Restructuring Activity – as of February 2003 –.” U.S. Department of Energy, U.S. Energy Information Administration. Available: <http://large.stanford.edu/publications/coal/references/docs/restructure.pdf>. **New Mexico:** April 8, 2003. *Source:* New Mexico Legislature. 2003. “SB718: Public Utility Transition Cost Recovery.” Available: <https://www.nmlegis.gov/Legislation/Legislation?Chamber=S&LegType=B&LegNo=718&year=03>. **Virginia:** December 31, 2008. *Sources* (allowed retail choice for residential customers until the expiration or termination of capped rates): HB 3068 (§ 56-577(4)) at: Virginia’s Legislative Information System. 2007. “Chapter 888.” Available: <http://lis.virginia.gov/cgi-bin/legp604.exe?071+ful+CHAP0888>; and Virginia Legislative System. 2007. “HB 3068: Electric Utility Service; Advances Scheduled Expiration of Capped Rate Period. Summary as Enacted with Governor’s Recommendation (April 11, 2007).” Available: <http://lis.virginia.gov/cgi-bin/legp604.exe?071+sum+HB3068>. *Sources* (companion bill for dates of advancing of scheduled rate caps): “The bill [SB 1416] advanced the scheduled expiration of the capped rate period from December 31, 2010, to December 31, 2008.” See: James M. Van Nostrand. 2008. “Constitutional Limitations on the Ability of States to Rehabilitate Their Failed Electric Utility Restructuring Plans.” *Seattle University Law Review*. Vol. 31, No. 3. Page 624. Available: <https://digitalcommons.law.seattleu.edu/cgi/viewcontent.cgi?article=1058&context=sulr>. For a summary of SB 1416, see: Virginia Legislative System. 2007. “SB 1416 Electric Utility Service; Advances Scheduled Expiration of Capped Rate Period. Summary as Enacted with Governor’s Recommendation (April 11, 2007).” Available: <http://lis.virginia.gov/cgi-bin/legp604.exe?071+sum+SB1416>.

Partial Access to Retail Choice/Load-Permitted Access to Retail Choice: All states with residential retail electric choice have full access to choice (i.e., all ratepayer classes). Of the states that suspended/repealed choice, Arizona, California, Montana, Nevada, and Virginia have load-permitted access to retail choice. (*Source:* Wayne Kuipers and Laura Chappelle. “Electricity Customer Choice Out-Performs Traditional Monopoly.” *Utility Dive*. August 23, 2016. Available: <https://www.utilitydive.com/news/electricity-customer-choice-out-performs-traditional-monopoly-1/424986/>.) Georgia permits retail choice for those customers with more than 900 kW of load, as does Oregon for certain large electricity customers. (*Source:* Mathew J. Morey and Laurence D. Kirsch [Christensen Associates Energy Consulting LLC]. 2016. “Retail Choice in Electricity: What Have We Learned in 20 Years?” Prepared for Electric Markets Research Foundation. Available: <https://sites.hks.harvard.edu/hepg/Papers/2016/Retail Choice in Electricity for EMRF Final.pdf>.)

California/Michigan: There is no consensus as to whether California and Michigan should be considered residential retail electric choice states. Some reports count just one (or the other), while some count both.

The Guinn Center treats California as a “Suspended/Repealed Choice State,” as the California Public Utilities Commission (CPUC) suspended retail choice on September 20, 2001. Neither the California State Legislature nor the CPUC has overturned the ruling. The state does permit Community Choice Aggregation (CCA), which “allows for communities to join together to purchase electricity on behalf of their community members.” *Source:* CalCCA. “CalCCA Advocates for Community Choice in California.” Available: <https://cal-cca.org/about/#top>.) Pursuant to Assembly Bill (AB) 117 in 2002, see: California Public Utilities Commission, Staff White Paper. 2017. “Consumer and Retail Choice, the Role of the Utility, and an Evolving Regulatory Framework.” Available: http://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/News_Room/News_and_Updates/Retail_Choice_White_Paper_5_8_17.pdf. While California’s CCAs are “an alternative to the incumbent utility,” they do not operate in a retail electric choice context (see: Nicolas Chaset, California Public Utilities Commission, Chief of Staff to Commission President Michael Picker. “Customer and Retail Choice in California.” Exhibit Prepared for the Governor’s Committee on Energy Choice, May 10, 2017. Available: http://energy.nv.gov/uploadedFiles/energynvgov/content/Programs/TaskForces/2017/Agenda_item_4_-_California_Presentation.pdf.) (Regarding partial access, “In October 2009, Governor Arnold Schwarzenegger signed into law, Senate Bill 695, which provided for a limited reopening of the DA [direct access] market for only non-residential customers beginning in April 2010. Subsequently, the CPUC issued two Decisions, D.10-03-022 and D.10-05-039 which established Annual Load Caps for a phased reopening over a 4 year period and an Overall Load Cap of 9,520 GWh.” See: PG&E. “Direct Access Electric Service.” July 1, 2018. Available: https://www.pge.com/en_US/business/services/alternatives-to-pge/electric-services/direct-access-electricity/direct-access-electricity.page.) Michigan technically permits residential retail electric choice, though “no more than 10 percent of an electric utility’s average weather-adjusted retail sales for the preceding calendar year may take service from an alternative electric supplier at any time.” This means that “[c]urrently, no licensed alternative electric suppliers are marketing or enrolling residential customers.” (See: Michigan Public Service Commission. “Electric Customer Choice Frequently Asked Questions for Customers.” Available: https://www.michigan.gov/mpsc/0,4639,7-159-16377_17111-42899--,00.html.) While Michigan’s residents do not have access to retail electric choice currently, the law theoretically permits it, and, as such, the Guinn Center treats it as “Choice State.”

²² Nevada Revised Statutes. § 704B. Available: <https://www.leg.state.nv.us/NRS/NRS-704B.html>.

²³ Data for Table 1 obtained from: U.S. Department of Energy, U.S. Energy Information Administration. “Electricity Data Browser: Average Retail Price of Electricity.” “Annual” button selected on the EIA site to retrieve the annual average retail price of electricity for 2017. Available: <https://www.eia.gov/electricity/data/browser/#/topic/7?agg=0.1&geo=vvvvvvvvvvvo&endsec=v&linechart=ELEC.PRICE.TX-ALL.A~ELEC.PRICE.TX-RES.A~ELEC.PRICE.TX-COM.A~ELEC.PRICE.TX-IND.A&columnchart=ELEC.PRICE.TX-ALL.A~ELEC.PRICE.TX-RES.A~ELEC.PRICE.TX-COM.A~ELEC.PRICE.TX-IND.A&map=ELEC.PRICE.US-ALL.A&freq>.

²⁴ The official ECI reply comment presented to the CEC on the PUCN report is critical of annual price metrics, noting that EIA’s Monthly Energy Review with data from January of 2018 was available at the time of the PUCN’s writing (see: Tamara Beatty Peterson, Esq., and Jon Wellinghoff, Esq. “Motion for Leave to Submit Reply Comments of Nevadans for Affordable Clean Energy Choices (Before the Public Utilities Commission of Nevada: Docket No. 17-10001).” Presented as an Exhibit to the Governor’s Committee on Energy Choice, May 9, 2018. Available: http://energy.nv.gov/uploadedFiles/energynvgov/content/Programs/TaskForces/2017/Motion_re_Reply_Comments_FINAL.pdf.) That more recent data is available is not an inaccurate statement, particularly as the PUCN relied on 2016 averages; in fact, the May 2018 EIA Monthly Energy Review includes data average retail prices of electricity for February of 2018. (See: U.S. Department of Energy, U.S. Energy Information Administration. “June 2018: Monthly Energy Review.” Available: <https://www.eia.gov/totalenergy/data/monthly/pdf/mer.pdf>) However, it is not clear that this data is available by state. Furthermore, were it available, we believe that monthly snapshots are problematic, as it would be no more fair to compare, say, Nevada to Massachusetts in February than would be the reverse in July.

²⁵ Jeff Lien. 2008. “Economic Analysis Group Discussion Paper: Electricity Restructuring: What Has Worked What Has Not, and What is Next.” U.S. Department of Justice, Economic Analysis Group, Antitrust Division. EAG 08-4. Page 2. Available: <https://www.justice.gov/sites/default/files/atr/legacy/2008/04/30/232692.pdf>.

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- ²⁷ On the current status of residential retail electric choice in Michigan, see: Michigan Public Service Commission. "Electric Customer Choice Frequently Asked Questions for Customers." Available: https://www.michigan.gov/mpsc/0,4639,7-159-16377_17111-42899--,00.html; Wayne Kuipers and Laura Chappelle. "Electricity Customer Choice Out-Performs Traditional Monopoly." *Utility Dive*. August 23, 2016. Available: <https://www.utilitydive.com/news/electricity-customer-choice-out-performs-traditional-monopoly-1/424986/>.
- ²⁸ The basis for these findings appear to be a report titled, "A Case Study of Electric Competition Results in Pennsylvania: Real Benefits and Important Choices Ahead," co-authored by Christina Simeone and John Hanger. The authors used EIA data, citing several datasets therein. However, it is not clear whether the findings regarding electricity prices rely entirely, somewhat, or not at all on this data. Available: https://kleinmanenergy.upenn.edu/sites/default/files/proceedingsreports/A_Case_Study_of_Electric_Competition_Results_in_Pennsylvania_0_0.pdf; John Hanger. "Comments of John Hanger, Former Sec. of Planning & Policy and Pennsylvania PUC Commissioner, to Governor Sandoval's Committee on Energy Choice." Exhibit Prepared for the Governor's Committee on Energy Choice, May 10, 2017. Available: http://energy.nv.gov/uploadedFiles/energynvgov/content/Programs/TaskForces/2017/Agenda_item_5_-_Pennsylvania_Presentation.pdf.
- ²⁹ Eric L. Prentis. 2015. "Evidence on U.S. Electricity Prices: Regulated Utility vs. Restructured States." *International Journal of Energy Economics and Policy*. Vol. 5, No. 1. Page 261. Available: <http://dergipark.gov.tr/download/article-file/361382>.
- ³⁰ Eisenbach Consulting, LLC. "Texas Energy Deregulation: Short-Term and Long-Term Trends." *Electric Choice*. June 17, 2016. Available: <https://www.electricchoice.com/blog/texas-energy-short-long-term-trends/>
- ³¹ Texas Coalition for Affordable Power. 2016. "Snapshot Report: Electricity Prices in Texas." Page 2. Available: <http://tcaptx.com/wp-content/uploads/2016/06/TCAP-ElectricityPricesinTX-Snapshot-A-Final.pdf>.
- ³² Texas Coalition for Affordable Power. 2016. "Snapshot Report: Electricity Prices in Texas." Available: <http://tcaptx.com/wp-content/uploads/2016/06/TCAP-ElectricityPricesinTX-Snapshot-A-Final.pdf>. Texas might have offered an interesting "natural experiment" to examine the effects of restructuring, as not all areas in the state are subject to restructuring. San Antonio and Austin, for example, receive electricity service from served by municipally-owned utilities or electric cooperatives, while other cities and towns are outside the boundaries of the grid service area. Ideally, this would allow for a quasi-experimental analysis, since an intrastate comparison might permit assessment of restructuring that is not compromised by variation across states. However, retail electric choice is available to 90 percent of the load in Texas, which would make the validity of the findings limited by the uneven distribution of retail electric choice. On retail electric choice availability to 90 percent of the load in Texas, see: Philip R. O'Connor, Ph.D., and Erin M. O'Connell-Diaz. 2015. "Evolution Of The Revolution: The Sustained Success Of Retail Electricity Competition." Available: https://yesquestion3.com/wp-content/uploads/2018/05/Massey_Evolution-of-Revolution.pdf.
- ³³ See: Guinn Center. 2017. "Restructuring the Electricity Market in Nevada? Possibilities, Prospects, and Pitfalls."
- ³⁴ Figure 2 constructed by the Guinn Center using data obtained from: U.S. Department of Energy, U.S. Energy Information Administration. "Henry Hub Natural Gas Spot Price (Dollars per Million Btu)." Available: <https://www.eia.gov/dnav/ng/hist/rngwhhdA.htm>. Inflation adjustment (2017 Constant Dollars) calculated by the Guinn Center using annual averages for "CPI-All Urban Consumers (Current Series)," obtained from: U.S. Department of Labor, Bureau of Labor Statistics. "Databases, Tables & Calculators by Subject." Available: <https://data.bls.gov/timeseries/CUUR0000SA0>.
- ³⁵ Guinn Center conversation with industry expert.
- ³⁶ In New England, in the first half of 2014, EIA found that residential customers of both full-service utilities and restructured suppliers experienced similar rate increases of about 11.8 percent, with the primary driver being the "sharp rise in wholesale power prices." See: U.S. Department of Energy, U.S. Energy Information

Administration. “Residential Electricity Prices Are Rising.” September 2, 2014. Available: <https://www.eia.gov/todayinenergy/detail.php?id=17791>.

³⁷ On real-time pricing, see: ISO New England. “FAQs: Day-Ahead Energy Market—Commitment, Scheduling, and Dispatch.” Available: <https://www.iso-ne.com/participate/support/faq/da-market-commitment>; Berkshire Hathaway Energy. “NV Energy Enters the Western Energy Imbalance Market.” December 1, 2015. Available: <https://berkshirehathawayenergyco.com/news/nv-energy-enters-the-western-energy-imbalance-market>.

³⁸ See Public Utilities Commission of Nevada. “Who Does the PUCN Regulate?” Available: http://puc.nv.gov/FAQ/Who_Does_the_PUCN_Regulate/.

³⁹ Guinn Center conversation with industry expert.

⁴⁰ Raymond L. Gifford, Robin J. Lunt, and Matthew S. Larson (Wilkinson Barker Knauer) | Hugh Wynne and Eric Selmon (Power Research Group). 2017. “The Breakdown of the Merchant Generation Business Model: A Clear-Eyed View of Risks and Realities Facing Merchants.” Available: [http://www.wbklaw.com/uploads/file/Articles-News/2017_articles_publications/WBK-PRG_Merchant_Generation_White_Paper\(1\).pdf](http://www.wbklaw.com/uploads/file/Articles-News/2017_articles_publications/WBK-PRG_Merchant_Generation_White_Paper(1).pdf).

⁴¹ With the exception of two jurisdictions, rate caps, rate freezes, and rate reductions were established through enabling legislation (an example is Pennsylvania; see: P.L.802, No.138, the “Electricity Generation Customer Choice and Competition Act of 1996,” available at: <https://www.legis.state.pa.us/WU01/LI/LI/CT/HTM/66/00.028..HTM>). The District of Columbia’s enabling legislation delegated authority to the District of Columbia Public Service Commission (“the Commission”) to set alternative forms of regulation. The legislation prescribes that the Commission “...may adopt an alternative form of regulation...if the Commission finds, after notice and a hearing, that the alternative form of regulation: (A) Protects consumers; (B) Ensures the quality, availability, and reliability of regulated electric services; and (C) Is in the interest of the public, including shareholders of the electric company. Alternative forms of regulation may include: (A) Price regulation, including price freezes or caps;...[.]” (See: <https://code.dccouncil.us/dc/council/laws/docs/13-107.pdf>; p. 18.) “Order No. 11576, issued December 30, 1999... authorized a 7 percent reduction in PEPCO’s rates for residential customers and a 6.5 percent reduction in rates for commercial customers, to be implemented in three phases.” (See: https://dcpsc.org/PSCDC/media/PDFFiles/Electric/Electric_Restructuring.pdf; page number not specified.) The New York Public Service Commission (PSC) administered rate reductions independently of the New York State Legislature (see: <http://www.assembly.state.ny.us/Reports/Energy/199902/>). However, also note that New York restructured its electric power industry through a PSC opinion and order (see: <http://large.stanford.edu/publications/coal/references/docs/restructure.pdf>).

⁴² For example, Maryland implemented rate caps and rate reductions. See: Federal Trade Commission. 2001. “Competition and Consumer Protection Perspectives on Electric Power Regulatory Reform: Focus on Retail Competition (Appendix A).” Available: <https://www.ftc.gov/sites/default/files/documents/reports/competition-and-consumer-protection-perspectives-electric-power-regulatory-reform-focus-retail/appa.pdf>. On Maine’s having not instituted rate caps, rate reductions, or rate freezes, see: Reishus Consulting, LLC. “Electric Restructuring in New England – A Look Back.” Prepared for New England States Committee on Electricity (NESCOE). December 21, 2015. Available: <http://nescoe.com/resource-center/restructuring-dec2015/>.

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⁴⁵ Public Sector Consultants. 2014. “Electric Industry Deregulation: A Look at the Experience of Four States.” Prepared on Behalf of Consumers Energy and DTE Energy. Available: https://www.publicsectorconsultants.com/wp-content/uploads/2016/12/Electric-Industry-Deregulation-Case-Studies_March-2014.pdf.

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