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A Time for Choosing: Why Choice and Competition in Electricity are Right for Arizona

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Because Arizona's geographical position is economically disadvantageous, the state must adopt the very best policies in every area to maintain a strong competitive position.¹ After 20 years of waiting, it's time for Arizonans to enjoy the benefits of electric power competition.

Restructuring Arizona's electricity markets would break up the current monolithic system, in which customers deal directly with monopoly utilities that provide and control everything from the generator and electrical wires to transformers and meters. Generators will constitute a wholesale electricity market, selling to each other and retailers. Retailers, as independent entities, will purchase electricity for resale to consumers. The local and regional electric grid will continue as one or more integrated regulated utilities controlled by one or more "balancing authorities" that schedule generation to instantly meet demand. In short, restructuring is choice and competition, not deregulation.

Arizona was once ahead of the electric restructuring curve when the Arizona Corporation Commission (ACC) passed rules to restructure in 1996 and the legislature gave further statutory clarification in 1998.² Removable legal roadblocks have stymied progress for a decade, but these can be addressed.³ Meanwhile, states like Pennsylvania and Texas have demonstrated that California's negative experience in transitioning to competitive electricity markets can be avoided. These states also attest to the benefits of restructuring, including lower rates, more efficient delivery, and innovation. Restructuring works because choice and competition work.

Choice and Competition Benefit the Economy, Monopoly Hurts

The main benefits of restructuring electricity markets are lower electricity prices, supply efficiently meeting demand, innovation, and cost savings. These benefits lead to sustainable economic growth. By contrast, economists have long shown that monopolies result in inefficiency, little innovation, high prices and low supply.

Choice and Competition Mean Lower Electricity Prices

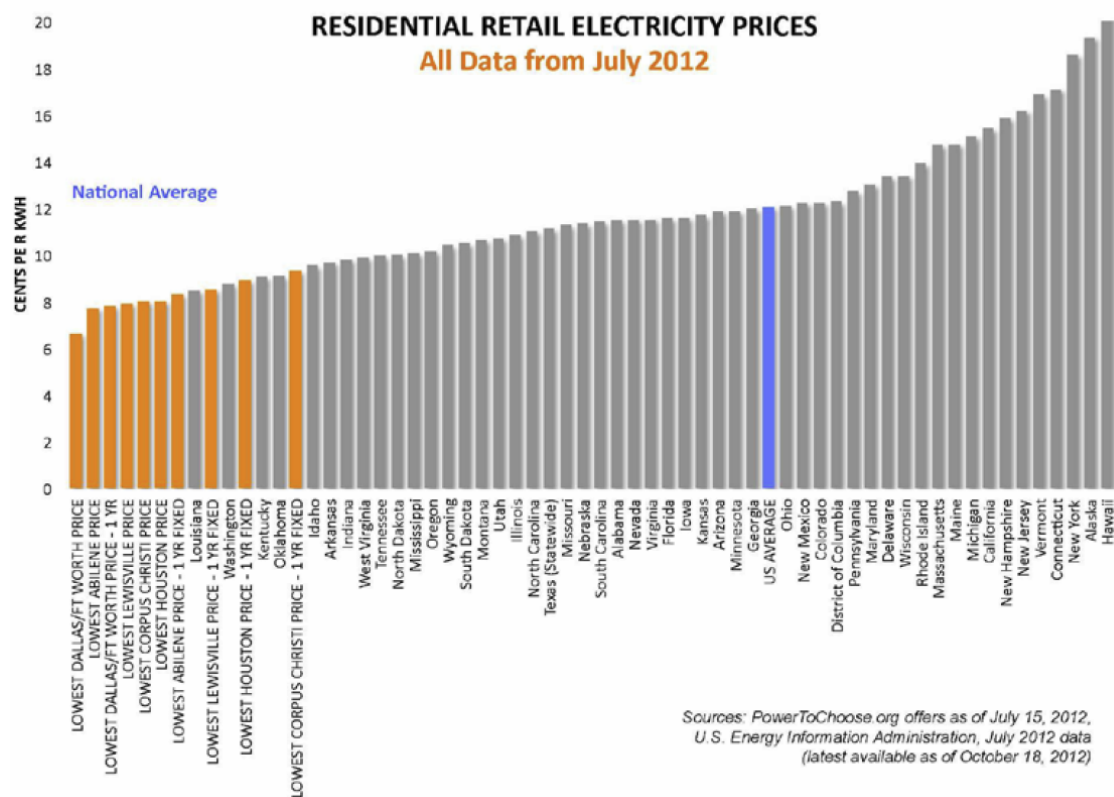
The federal Energy Policy Act of 1992, which gave the Federal Energy Regulatory Commission the authority to introduce wholesale market electric competition, was passed partly in response to rising electricity prices and supply shortages in previous decades. Monopoly utilities routinely failed to respond to new technologies and lower prices of some kinds of energy, particularly natural gas. Their operations were inefficient and relatively inflexible. As a result, during the 1970s and 1980s, regulated electricity prices rose by 60 percent on top of inflation. Meanwhile, deregulation in natural gas, telecommunications, airlines, trucking, and railroads reduced prices in those industries.⁴

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In a restructured electricity market, reasonable prices will be ensured through competition. A source of competition will be new entrants into the generation and retail markets, which will see economic opportunities not currently open to them due to regulation. Out of competitive necessity, generators will seek the most efficient and least cost methods for generating electricity. Generators will even trade with each other to reduce risk and obtain the most profitable (least cost) deals, often learning from each other to achieve greater efficiencies. It is even possible to contract with suppliers from other major grids due to the presence of extremely high voltage direct current lines that bridge the grids.

As shown in Figure 1, where competition prevails in Texas, pricing plans offer consumers electricity prices lower than the average price in Arizona—and even lower than the lowest state average in the nation. This is just under 7 cents per kilowatt hour for the lowest cost Texas plan versus approximately 11 cents per kilowatt hour in Arizona and just under 8 cents per kilowatt hour in Louisiana.

Figure 1: Lowest Texas Competitive Electricity Rates Compared to National and State Averages⁵



There is no evidence competition has done anything to discourage the expansion of generation capacity and actual electricity production. Evidence points to the opposite.

Choice and Competition Mean Increased Capacity

There is no evidence competition has done anything to discourage the expansion of generation capacity and actual electricity production. Evidence points to the opposite. From 1998 to 2010, electric generation capacity in Texas grew 45 percent, outstripping the state's 39 percent growth in GDP by 6 percentage points. Over the same time period, restructured Pennsylvania saw its generation capacity increase 9 points faster than its GDP growth rate.

Choice and Competition Lead to Cost Savings—Even in Nuclear Power

One study from Pennsylvania conservatively estimates that improved nuclear plant performance due to restructuring saves Pennsylvania electricity consumers more than \$120 million. Due to Pennsylvania's restructured system, it has access to a larger regional

market, improving plant operations by allowing shutdowns for maintenance to occur without compromising grid reliability.⁶

Choice and Competition Support Innovation

Shopping for electricity in Texas's competitive electricity markets is like shopping for cell phone plans. Texas consumers enjoy innovative pricing plans. One retailer offers a \$250 restaurant gift card to new customers.⁷ Others offer guaranteed rate plans of one- and two-year duration as well as plans for wind-only power, and variable rate plans suitable for demand management. Some retail electric providers offer discounts for persuading others to sign up.⁸ Generation innovations that can be expected in a restructured market include small megawatt micro generators, as well as micro-grids.

Choice and Competition Encourage Efficiency in Capacity

Rather than building excess electricity generation capacity according to hypothetical maximum demand that leaves some generation capacity idle most of the time, demand will be mitigated by market means.⁹ Commercial and industrial customers can financially benefit from making demand response agreements to reduce electricity usage during peak demand periods. Devices can turn off unessential loads during peak demand periods and electricity retailers can create pricing plans to incentivize individuals willing to do so to install such devices.¹⁰ Demand reduction can be substituted for capacity investment through adoption of peak-load, real-time pricing, which customers could choose with smart meters already being installed in Arizona.¹¹

Choice and Competition Can Accommodate the EPA Threat to NGS/Four Corners

If the uncertainty and burdens of new EPA regulations threaten the viability of the Navajo Generation Station (NGS) and Four Corners facilities in such a way as to result in a disorderly and dramatic reduction in generation capacity during restructuring, then special consideration should be given to defraying those uncertainties and burdens. The best policy recommendation would be to enact a regulatory tax credit at the federal level (or less optimally the state level) that would allow for the costs of new EPA regulations to be reimbursed through corresponding tax credits to the facility operators.¹² The second best policy recommendation would be to allow the application of a special surcharge to all wholesale or retail sales in an amount sufficient to recoup the costs of complying with new EPA regulations at the NGS/Four Corners facilities, which would be retained by the facility operators. Either policy solution should be narrowly tailored to the specific NGS/Four Corners facilities to prevent expansion to other facilities and based on strict regulatory cost recovery criteria to prevent the possibility of "gold plating" or the financing

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of facilities expansion that could threaten the emergence of competition. They should also be subject to a sunset provision to ensure that the special treatment of these facilities exists only during a transitional period in which capacity might be threatened by the closure or substitution of those facilities.

Choice and Competition Will Make Sure Retailers Are Honest and Reliable

Consumers can, should, and will discipline the retail market by having available to them a variety of suppliers and retail electricity plans from which to choose. Just as there is information through *Consumer Reports*, the Better Business Bureau, and AngiesList.com about sellers and products, similar information will arise in a competitive electricity market.¹³ Government should resist the urge to impose regulation in the retail and generation electric markets beyond bonding requirements, which are more consistent with flexible markets than more intrusive and arbitrary licensing regulations.

Choice and Competition Will Protect Customers from Retailer Insolvency

Restructured states, on a service area basis, designate a “Provider of Last Resort” in cases where consumers lose their electric retailer due to retailer departure or when consumers refuse to make a choice of retailer. Providers of last resort are chosen by a state regulator, such as the ACC, based on retailer financial health. Providers of last resort are allowed to charge relatively high electricity rates, due to the risk they take on, and are obligated to inform consumers that they have other choices of electric rate plans and retailers.¹⁴ As of August 2012, there were 114 different retail electric providers in Texas offering multiple plans. Customers in restructured electric markets have many alternatives.¹⁵

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Choice and Competition Work Even When Some Consumers Don’t Choose

Electricity consumers who do not choose an electricity provider receive reliable electricity service from their respective providers of last resort. Texas and Pennsylvania, the two states farthest along in electric restructuring, both have designated retail electric providers once associated with monopoly utilities as providers of last resort. In Pennsylvania, designated providers of last resort were associated with incumbent (pre-existing) utilities. Consequently, many people simply stayed with their original provider, since pre-existing utilities divide their businesses into generation, retail, and transmission components. Texas has a tendency to also use incumbent companies, but consumers are notified by mail and by automated phone calls that they may choose rate plans from a number of companies. The state also provides a website consumers may access for company and pricing information.¹⁶

Electricity has been a lot like schools for a very long time, with one's electric company, like one's school, determined by one's address and with no active shopping on the part of the consumer. As a result, there will have to be some effort to educate consumers. Although choice might start off slowly, people learn. New retail electric providers will have every incentive to provide information. Incumbent companies will have an incentive to differentiate themselves. It might take some time and patience, but electric consumers will learn how to shop and how to separate reliable companies from the unreliable ones.

Choice and Competition are not Deregulation

The grid will be operated as a utility, so the ACC will continue to play a critical regulatory role. The ACC, along with load balancing organizations, will help determine where it is physically best for generators to connect, whether the local grid has the necessary capacity, and what generators will have to pay in order to physically access the grid, which will continue to be privately owned. To the extent that the grid needs upgrading and expansion, the ACC and the load balancing organization(s) will be in the best position to determine how costs should best be shared where the greatest needs present themselves. It will also be the ACC's job to aid in integrating balancing authorities as the need and desire arises. These authorities can be integrated into a single Regional Transmission Organization (RTO). The existing Arizona Independent Scheduling Administrator Association (AZISA) could become the state's RTO or Arizona could join with other states to form an RTO with a wider region.

Conclusion

Highly regulated systems pile risk on consumers, hiding the cost through hidden mandates and preventing those in the best position to mitigate risk (namely, the providers) from bearing its cost through guaranteed rates of return. As has been demonstrated, Arizonans can enjoy innovation, relatively low electricity prices, reliability and efficiency, all producing greater prosperity, with restructured electricity markets that ultimately produce fairer outcomes for all.

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10. For an example of such innovation with respect to lighting, see http://www.sciencedaily.com/videos/2007/0506-saving_electricity_and_saving_money.htm
11. In 2012, Texas was the only region in which the reserve capacity target, at 14 percent more generation capacity than estimated maximum demand, was not met or exceeded. Despite significant capacity growth, Texas fell short by one percentage point. However, this temporary one percentage point shortage in reserve capacity was not a market failure. It is to be expected that an efficient competitive market would have a different level of reserve capacity than an inefficient rate-regulated monopoly. The capacity growth in Texas' fully restructured market has been responsive to actual and anticipated consumer demand, rather than to regulatory mandates that promise incumbent utilities the recovery of costs and a reasonable rate of return. However, even if reserve capacity targets established by regulators were somehow the correct measure of reserve capacity for a competitive market, the solution for a temporary inadequacy in reserve capacity is not subsidies to generators or less competition and choice. Regulators of the grid should instead reach arrangements with non-essential consumers of electricity to

reduce their demand in the event of supply shocks. For example, in Pennsylvania, the Regional Transmission Organization (RTO) recently negotiated an arrangement with Pennsylvania State University to reduce its consumption of electricity in the event of excess electricity demand. Likewise, regulators should encourage retailers to compete for consumers by offering insurance to cover power losses in exchange for consumers adopting “smart appliances” that cease drawing electricity from the grid during supply shocks or excessive demand. Lastly, regulators should do everything they can to minimize government distortion of the free market. Because of their relatively unreliable nature, excessive use of wind and solar power, rather than conventional electrical generation, can contribute to a loss of generation capacity when needed.

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