

Alliance for Affordable Energy

**Regulation vs. Deregulation: An Analysis of Electricity
Markets**

By

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The Question and Summary

This piece will provide an analysis of the benefits and consequences of: either maintaining regulation on the electricity market in the state of Louisiana or constructing a deregulated market. Furthermore, this essay will provide some background information to the case at hand. My conclusion, in sum, is that deregulation could be the best plan, however, it has periodically failed to provide adequate diversity of options, adequate electrical power, and better pricing. However, it often brings newer, more updated, and clean, facilities. In contrast, regulation seems to almost always provide cheaper power when compared to deregulated markets, however, this seems to promote waste and inefficiency.

History of Differing Markets

In this section we will look at different states relating to how they implemented deregulation, the before and after effects, and, briefly, nonelectrical markets.

Here, we will look at California, Texas, and Pennsylvania.

California: In 1996, Assembly bill 1890 was passed. The bill allowed for competition between power companies and the deregulation of the electrical market in California.

Professor Phillip Romero, an economist at Oregon State who was instrumental in the deregulation of California's electrical markets, summarized his thoughts on the process:

"I was intimately involved in the early stages (mid 1990s) of CA's electricity restructuring, and thereafter I lightly followed state energy issues for a few years, but ceased doing so in the early 2000s. Post-restructuring in AB 1890 of 1996, because capacity was in surplus California saw lower rates for about three years. But to pass the bill the legislature inserted price ceilings (which the utilities acceded to because they believed the price trend would be down, not up). When in the winter of 2000/01 supplies became short and Enron manipulated the wholesale market, wholesale prices shot up, but utilities could not recoup their costs due to those retail price controls. This was allowed to persist because the then-governor Gray Davis made no attempt to fix things through amended legislation. He was recalled in favor of Arnold Schwarzenegger two years later, largely for this reason. The lesson for me is that deregulation can work well, mid the underlying industry structure can be reasonably competitive and if the political leadership is willing to correct

any transition mistakes. Continued regulation often ends up harming consumers more than protecting them.”

Deregulation in California was marred with market manipulation and power outages, or brownouts. Residents complained of random price spikes and periodic brownouts that created uncomfortable and often more difficult living conditions when compared to their feelings and lifestyle prior to the passing of 1890. Prices also soared. ““On the state level, part of California's deregulation process, which was promoted as a means of increasing competition, was also influenced by lobbying from Enron. Eventually a total of 40% of installed capacity – 20 gigawatts – was sold to what were called "independent power producers." These included Mirant, Reliant, Williams, Dynegy, and AES. The utilities were then required to buy their electricity from the newly created day-ahead only market, the California Power Exchange (PX). Utilities were precluded from entering into longer-term agreements that would have allowed them to hedge their energy purchases and mitigate day-to-day swings in prices due to transient supply disruptions and demand spikes from hot weather.

[I]n 2000, wholesale prices were deregulated, but retail prices were regulated for the incumbents as part of a deal with the regulator, allowing the incumbent utilities to recover the cost of assets that would be stranded as a result of greater competition, based on the expectation that “frozen” rates would remain higher than wholesale prices. This assumption remained true from April 1998 through May 2000.

Energy deregulation put the three companies that distribute electricity into a tough situation. Energy deregulation policy froze or capped the existing price of energy that the three energy distributors could charge¹. Deregulating the producers of energy did not lower the cost of energy. Deregulation did not encourage new producers to create more power and drive down prices. Instead, with increasing demand for electricity, the producers of energy charged more for electricity². The producers used moments of spike energy

¹ <https://web.archive.org/web/20080206194211/http://www.sfgate.com/cgi-bin/article.cgi?file=%2Fgate%2Farchive%2F2001%2F05%2F08%2Flookhow.DTL>

² <https://www.sfgate.com/news/article/THE-ENERGY-CRUNCH-A-YEAR-LATER-State-s-2834535.php>

production to inflate the price of energy³. In January 2001, energy producers began shutting down plants to increase prices.⁴

When electricity wholesale prices exceeded retail prices, end user demand was unaffected, but the incumbent utility companies still had to purchase power, albeit at a loss. This allowed independent producers to manipulate prices in the electricity market by withholding electricity generation, arbitraging the price between internal generation and imported (interstate) power, and causing artificial transmission constraints. This was a procedure referred to as "gaming the market." In economic terms, the incumbents who were still subject to retail price caps were faced with inelastic demand. They were unable to pass the higher prices on to consumers without approval from the public utilities commission. The affected incumbents were Southern California Edison (SCE) and Pacific Gas & Electric (PG&E). Pro-privatization advocates insist the cause of the problem was that the regulator still held too much control over the market, and true market processes were stymied, whereas opponents of deregulation assert that the fully regulated system had worked for 40 years without blackouts.⁵

The Federal Energy Regulatory Commission (FERC) found in a compilation of studies that California's "...supply-demand imbalance, flawed market design and inconsistent rules made possible significant market manipulation as delineated in final investigation report. Without underlying market dysfunction, attempts to manipulate the market would not be successful... many trading strategies employed by Enron and other companies violated the anti-gaming provisions... Electricity prices in California's spot markets were affected by economic withholding and inflated price bidding, in violation of tariff anti-gaming provisions."⁶

The major flaw of the deregulation scheme was that it was an incomplete deregulation – that is, "middleman" utility distributors continued to be regulated and forced

³ <https://www.sfgate.com/news/article/THE-ENERGY-CRUNCH-A-YEAR-LATER-State-s-2834535.php>

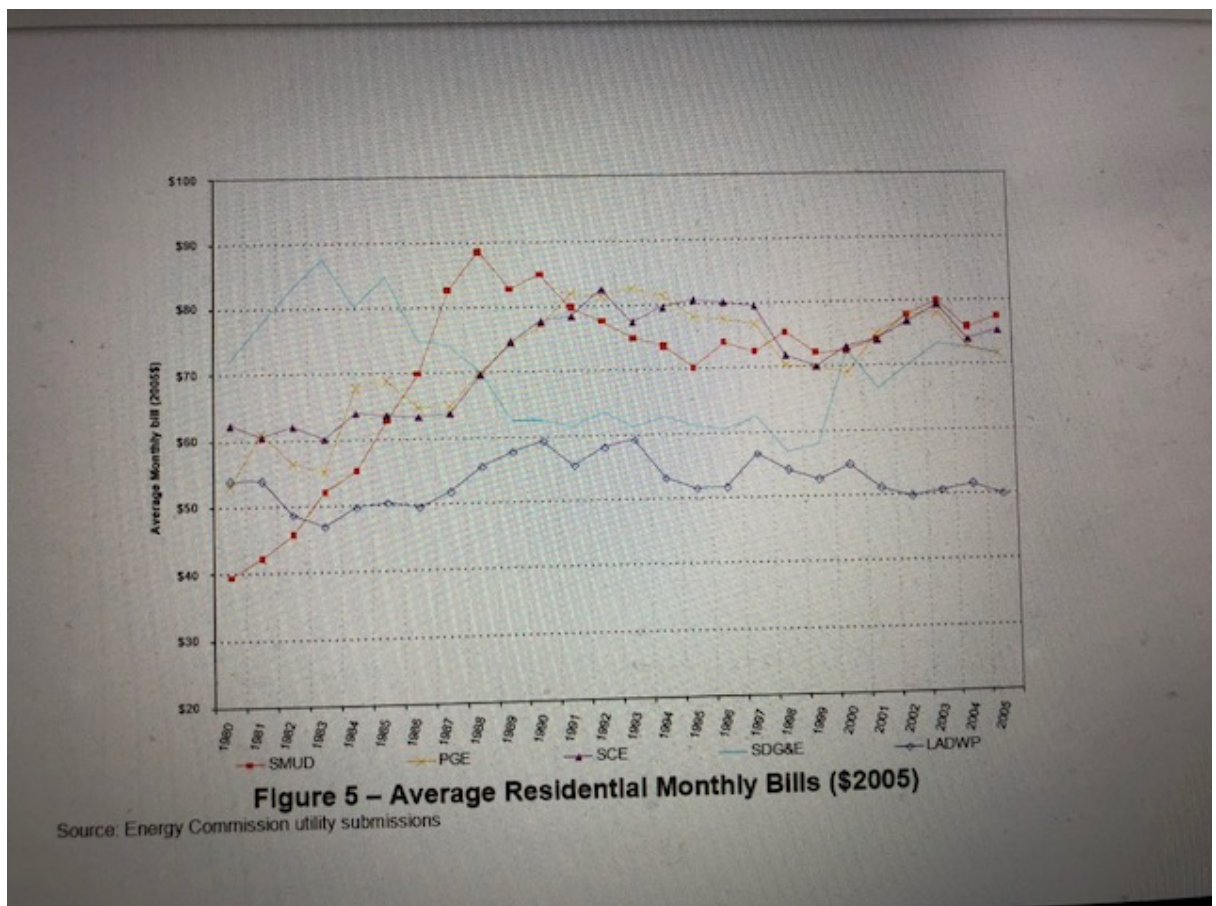
⁴ <https://www.sfgate.com/news/article/THE-ENERGY-CRUNCH-A-YEAR-LATER-State-s-2834535.php>

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⁶ <https://www.ferc.gov/industries/electric/indus-act/wec/enron/summary-findings.pdf>

to charge fixed prices, and continued to have limited choice in terms of electricity providers⁷. Other, less catastrophic energy deregulation schemes, such as Pennsylvania's, have generally deregulated utilities but kept the providers regulated, or deregulated both⁸.

However, a glance at a study done by the California Energy Commission shows that price changes were almost entirely due to inflation, not the deregulation of the market⁹.



The study evaluates the California market from 1980-2005.

Regardless, California's market, while no longer suffering from brownouts, does have huge discrepancies in price. Sacramento uses their own regulated electrical system. Fresno, a city of comparable size in California, uses PG&E, Pacific Gas and Electric. Both cities are in similar geographic locations yet both pay very different rates. Fresno residents pay, on average

⁷ This is precisely how Professor Romero states it and many truly believe that deregulation, when done properly, does constitute the most power to the consumer and best outcome for all.

⁸ <https://thenevadaindependent.com/article/what-can-texas-california-and-pennsylvania-teach-nevada-about-energy-deregulation>

⁹ <file:///C:/Users/Owner/Desktop/California%20Inflation%20E%20Prices.PDF>

15.59 cents k/wh¹⁰, whereas, Sacramento residents pay closer to 12.39 cents k/wh¹¹. Sacramento even sports a higher cost of living when compared to Fresno¹², however, not by much. While many factors can be at play, it seems consumers of regulated markets pay cheaper electricity prices, at least on average, when compared to those from deregulated areas. However, competition is lacking in California. PG&E dominates the market of California and perhaps artificially keeps prices higher in deregulated areas and inherently limits price floors and competition.

Texas: In 2002, Texas passed a bill that deregulated their electricity market. Many point to Texas as being the model for successful deregulation of a once regulated market. Texas has a multitude of energy companies to choose between¹³, unlike California, and has done little to use partial regulation. Texas' deregulation also did help with quick innovation in alternative and clean energy usage¹⁴. However, Texas' prices keep soaring¹⁵. The Texas Coalition for Affordable Power, TCAP, has done a comprehensive study comparing prices before and after the deregulation of the market. TCAP has estimated that Texans have lost millions in deregulation¹⁶. They have also pointed to the unrelenting price hikes every year and how, due to their weather, Texans will always spend more and more to keep their homes cooler and cooler¹⁷. TCAP also did a price comparison within Texas' regulated and deregulated zones and found that every single regulated zone had cheaper k/wh prices than any deregulated zone within the state¹⁸. However, total usage and efficiency remain not fully counted for¹⁹.

Compared to California, Texas has had few crises in supply and, has generally, had few problems with regulating the flow of electricity. The only true problem is the continuing

¹⁰ <https://www.electricitylocal.com/states/california/fresno/>

¹¹ <https://www.electricitylocal.com/states/california/sacramento/>

¹² https://www.numbeo.com/cost-of-living/compare_cities.jsp?country1=United+States&city1=Sacramento%2C+CA&country2=United+States&city2=Fresno%2C+CA

¹³ <http://tcaptx.com/wp-content/uploads/2014/02/TCP-793-Deregulation2014-A-1.7.pdf>

¹⁴ <https://www.saveonenergy.com/pdf/tx-energy-state-facts.pdf>
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¹⁵ <http://tcaptx.com/wp-content/uploads/2014/02/TCP-793-Deregulation2014-A-1.7.pdf>

¹⁶ <http://tcaptx.com/wp-content/uploads/2014/02/TCP-793-Deregulation2014-A-1.7.pdf>

¹⁷ <http://tcaptx.com/wp-content/uploads/2014/02/TCP-793-Deregulation2014-A-1.7.pdf>

¹⁸ <http://tcaptx.com/wp-content/uploads/2014/02/TCP-793-Deregulation2014-A-1.7.pdf>

¹⁹ <http://tcaptx.com/wp-content/uploads/2014/02/TCP-793-Deregulation2014-A-1.7.pdf>

price hike. It is possible that this hike is due to inflation, however, Texas has relatively high electrical costs compared to the US and has a cheaper cost of living when compared to the US national average²⁰.

Pennsylvania: ‘Like Texas, Pennsylvania legislators approved a bill in the late 1990s breaking up energy monopolies and separating them into separate distribution and generation suppliers. And just like Texas, former Pennsylvania [Public Utility Commission], PUC, commissioner John Hanger said, the state eased into a competitive market by placing rate caps on utilities until 2011. He said keeping the rate caps in place helped ensure that rates were stable enough to ensure former monopolies were able to recoup their investments on “stranded assets,” including power plants and other assets they’re required to divest as part of the “unbundling” process. “People can disagree, but at the end of the day all our cases settled,” he said. Hanger said the state spent about \$15 million through a small surcharge to customers to promote the new program, including an ad campaign and creation of a website for consumers to compare rates, including the option to “lock in” a certain rate or choose an electricity supplier that’s powered only by renewable energy, for example. Pennsylvania’s PUC estimates roughly 45 percent of residential electricity customers and 85 percent of industrial customers have picked an alternative energy supplier. Hanger recommended that policymakers institute strict regulations, including the ability to strip a license from an electricity supplier and levy huge fines, for businesses that try to gouge customers or break the rules... He added that Pennsylvania lawmakers also created programs designed to protect low-income power customers from volatile price swings, including upping a budget for energy efficiency programs for poor people and creating a program capping certain ratepayers electricity bills at a certain percentage of their income’²¹. Herein lies the difference, there was protection in Pennsylvania for low-income customers that proved protection and did not artificially cap the number of providers the way California did. Furthermore, PA had many small competitive companies, whereas, California, had megacompanies, like Enron and PG&E, who controlled the market.

²⁰ <http://tcaptx.com/wp-content/uploads/2014/02/TCP-793-Deregulation2014-A-1.7.pdf>

²¹ <https://thenevadaindependent.com/article/what-can-texas-california-and-pennsylvania-teach-nevada-about-energy-deregulation>

Nor was PA's introduction as slow as California's, which started from 1992 and was not fully transitioned for almost a decade.

Regulation, Deregulation, and Recommendation

Deregulation, in theory, seems like a plausible and beneficially option. In some cases, it seems benign, like in the case of Texas, but has led to price hikes increasingly hurting consumers. Deregulation cannot be done solely at the governmental level. In the case of California, mega-corporations lobbied state government intensely effecting implementation of bill 1890. Power companies must realize that by undercutting the government, and providing too many protections for themselves, they end up hurting the consumer or the supply itself.

Regulation, historically, keeps prices down to a minimum. One can look to almost any city, in any market, and conclude that the price of electricity in a deregulated market is cheaper in regards to k/wh²². However, this does not take into account how much energy is being used or wasted. It seems that deregulated markets, in theory, do promote efficiency and innovation. Additionally, this idea of efficiency and innovation seems to be a bit overplayed and speculative; not enough time has passed to conclude such an assertion in the macro, however, arguably, TX and PA have both responded positively to deregulation.

I have yet to see a case where deregulation has brought cheaper prices for residents. Not a single location where it has been implemented has there been price reductions²³. Companies do prosper, as do those who spend in bulk as they can negotiate on more of a level playing field with smaller companies compared to state monopolies; but it seems under either system consumers, particularly impoverished ones, are the most hurt.

I would recommend continuing to use a regulated electricity market, purely because I feel that the cost benefit for consumers would not drastically change and those on the lower end of the socio-economic ladder would be hurt most.

²² <http://tcaptx.com/wp-content/uploads/2014/02/TCP-793-Deregulation2014-A-1.7.pdf>

²³ <http://tcaptx.com/wp-content/uploads/2014/02/TCP-793-Deregulation2014-A-1.7.pdf>

Overview

Deregulation seems to lead to rising prices, mini-monopolies, and pressure on the consumer. Often, consumers and residents are hit with complicated billings, price comparisons, and overhead costs. In other markets, like airlines, few would argue that it has utterly failed. Prices continually soar while services get worse. Again, regulation seems like the best option for consumers and should be continually managed to be as efficient, clean, and cheap as possible for all to continue to prosper (including the providers).

Additional Anecdote

It's July in New Orleans. You feel your shirt sticking to you like the last bit of peanut butter glues itself to the bottom of your GIF jar. But when you're finished with that delicious last morsel you can just recycle the container. To escape the heat of New Orleans, or the wet winters, you constantly are running your aircon. And facilities here aren't cheap! Louisianans spend more on energy, and use more, than almost any other state in the country! Our buildings are also older and in worse shape, and therefore, struggle retaining heat or cold air. This leads to a recipe for disaster for all of us, but those who are hit the hardest are those with the least. Their homes and equipment are the oldest and put-out more electricity than more up-to-date buildings. So, what do you do if you want to reduce your electricity expenses? Usually if your phone bill at Verizon is expensive you swap to Sprint, or vice versa. But you can't do the same thing with electricity, well you can't in Louisiana. Many states in the US have regulated electrical and gas markets; the state allows one or two private companies in to do business for the whole state. These companies can choose to update their facilities, distribute them how they'd like, or not. They are loosely controlled by the state. However, what's the alternative? Some states have started transitioning to a deregulated market. The idea is competition between multiple energy companies will implement cost drops for consumers and gains for small electricity company providers breaking up the classic monopolies. Like anything, this has worked in some places and faltered in others. People often point to Texas as a great example of success for deregulation and California as a sign of what not to repeat. Something to note though is that both states offer greener and more efficient energy than regulated states. However, most of the time, prices do go up for these newer, more efficient, goods and it has never dropped (this could be a result of multiple factors like inflation or city growth as well but studies are still being done to determine if that is the case). Power is also not always as accessible either. In California there were shortages of energy and power outages across the state in the late 90s and early 2000s. Many areas, like Stockton, which has the worst economy in the state of California, were hit particularly hard and those on the lowest level of the socioeconomic ladder were again hit the hardest. So, what does this mean for us if Louisiana swaps to a deregulated market? We would lose the low prices that Entergy offers. We would gain cleaner and more efficient energy, but at what cost?

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