## Articles/Papers on Impact of Deregulation of Electric Industry

- 1. "Electricity Deregulation Failed in Other States" Citizens for Energizing Michigan's Economy November 20, 2017 (<a href="http://energizingmichigan.org/">http://energizingmichigan.org/</a>)
- 2. Map of Deregulated Energy States and Markets (Updated 2017) (www.electricchoice.com/map-deregulated-energy-markets/)
- 3. Anderson, Gerry "Electric market deregulation has failed to deliver on the promise of lower rates" July 12, 2016 (<a href="https://www.utilitydive.com/news/electric-market-deregulation-has-failed-to-deliver-on-the-promise-of-lower/422398/">https://www.utilitydive.com/news/electric-market-deregulation-has-failed-to-deliver-on-the-promise-of-lower/422398/</a>)
- 4. Borenstein and Bushnell, "The U.S. Electricity Industry after 20 Years of Restructuring" May 2015 (https://ei.haas.berkeley.edu/research/papers/WP252.pdf)
- 5. Nalder, Eric "Deregulation in Texas fails to make power more reliable, cheap" January 13, 2013 Houston Chronicle (<a href="http://www.houstonchronicle.com/business/energy/article/Deregulation-in-Texas-fails-to-make-power-more-4191062.php">http://www.houstonchronicle.com/business/energy/article/Deregulation-in-Texas-fails-to-make-power-more-4191062.php</a>)
- 6. "Shocking electricity prices follow deregulation," Paul Davidson and USA Today August 12, 2007 (http://abcnews.go.com/Business/story?id=3465534)
- 7. Rosen, Kelly and Stutz, "A Failed Experiment: Why electricity deregulation did not work and could not work" March 1, 2007 (Tellus Institute)

  (<a href="http://www.tellus.org/pub/A%20Failed%20Experiment%20-%20Why%20electricity%20deregulation%20did%20not%20work%20and%20could%20not%20work.pdf">http://www.tellus.org/pub/A%20Failed%20Experiment%20-%20Why%20electricity%20deregulation%20did%20not%20work%20and%20could%20not%20work.pdf</a>)
- 8. Toole, Ken "Don't make deregulation mistake again in Montana" March 6, 2017, Great Falls Tribune (<a href="http://www.greatfallstribune.com/story/opinion/2017/03/06/make-deregulation-mistake-montana/98802500/">http://www.greatfallstribune.com/story/opinion/2017/03/06/make-deregulation-mistake-montana/98802500/</a>)
- 9. Inbody, Kristen "Deregulation costs state hundreds of millions of dollars," December 6, 2014, Great Falls Tribune (<a href="http://www.greatfallstribune.com/story/life/2014/12/07/montana-moment-deregulation-costs-state-hundreds-millions-dollars/19978147/">http://www.greatfallstribune.com/story/life/2014/12/07/montana-moment-deregulation-costs-state-hundreds-millions-dollars/19978147/</a>)
- 10. "Changing Course: Latest RKS Survey of State Utility Regulators Documents Retreat from Deregulation," September 21, 2001, Power Marketers

1. "Electricity Deregulation Failed in Other States" Citizens for Energizing Michigan's Economy November 20, 2017 (<a href="http://energizingmichigan.org/">http://energizingmichigan.org/</a>)

This 2017 article starts with the premise that "[n]ot one of the 16 states – plus the District of Columbia – that have pushed forward with deregulation since the 1990s can call it a success." The article lists problems experienced in specific deregulated states. In Texas it was reported that a typical electric customer paid \$3,000 in added costs over a 10-year period due to deregulation, rates were more volatile, deregulation led to blackouts, and there were concerns about power shortages because of a drop in energy reserves. In California, deregulation was blamed for higher prices to families and businesses, rolling blackouts (the California energy crises 2000-2001), price gouging, market manipulation and a near bankruptcy for a state utility. The concerns caused by deregulation in Illinois included monthly bills that doubled or tripled, job losses, and electric capacity shortages. The concerns in New Jersey included the lack of needed new generation and an over reliance on out-of-state generation. Arkansas repealed its deregulation over concerns that it would hamper economic development efforts and would result in "few if any increases in service quality." In Connecticut it was reported that "deregulated electric providers were spiking their prices nearly double what the two regulated utilities were charging." Likewise New York reported that low-income consumers who switched to a deregulated provider were paying higher rates than if they had stuck with the traditional utility, and that "out-of-state predatory energy marketers had been caught misleading consumers about lower bills." Pennsylvania's Attorney General was investigating reports of "skyrocketing electricity costs from consumers who recently switched to deregulated energy marketers." Maryland was reported to have had an "extremely negative experience with deregulation" with rate increases of 40% - 80%. Michigan cited "uncertainty in planning for future reliability needs, the involvement of federal agencies, the tension between federal and state regulators, and the shifting of fixed costs to remaining residential and small business customers" as the negatives of deregulation.

2. Map of Deregulated Energy States and Markets (Updated 2017) (www.electricchoice.com/map-deregulated-energy-markets/)

The updated deregulated markets map points out that "no state has an energy market that is completely deregulated." The closest state is Texas with approximately 85% of the state having access to energy choice. Other than the state of Virginia, no deregulation has taken place in the electric market since 2002. In 2003, Arkansas passed legislation reversing deregulation. The comment for the status of deregulation in Virginia, the date for which is shown to be 2007, states "choice programs are limited for residential consumers. [Another article (see number 8 below) notes that in 2007 fresh incentives to build new plants were given and retail choice was ended for most customers "to ensure a sufficient customer base to finance generators."]

3. Anderson, Gerry "Electric market deregulation has failed to deliver on the promise of lower rates" July 12, 2016 (<a href="https://www.utilitydive.com/news/electric-market-deregulation-has-failed-to-deliver-on-the-promise-of-lower/422398/">https://www.utilitydive.com/news/electric-market-deregulation-has-failed-to-deliver-on-the-promise-of-lower/422398/</a>)

Article is by the CEO of DTE Energy, which is a Detroit-based utility company providing electric and gas service in Michigan. He points out that "electric rates in deregulated states were higher than those in regulated states when deregulation was first introduced in the late 1990s and remain higher to this day." Further, "customers in deregulated states have experienced significant price volatility, which often led to temporary price freezes, price caps, and other forms of intervention as regulators worked to address the problems inherent in the restructuring of electric markets." He concludes that deregulation failed to deliver on its promise of lower rates because it could not address the structural factors which drove the differences in rates in the first place."

4. Borenstein and Bushnell, "The U.S. Electricity Industry after 20 Years of Restructuring" May 2015 (<a href="https://ei.haas.berkeley.edu/research/papers/WP252.pdf">https://ei.haas.berkeley.edu/research/papers/WP252.pdf</a>)

The paper begins by stating the argument "that the greatest political motivation for restructuring was rent shifting, not efficiency improvements," and that "electricity rates since restructuring have been driven more by exogenous factors – such as generation technology advances and natural gas price fluctuations – than by the effects of restructuring." The hope of improvements in efficiency and lower costs through competition was "largely illusory," and "rates rose in both regulated and deregulated states, and more rapidly in the deregulated ones in the early years of reforms."

In discussing the restructuring of the wholesale market, the flaws in the market that led to the California energy crises were described as "a lack of competition made acute by the combination of tightening capacity and a near total absence of forward contracting." When gas prices peaked in the U.S. during 2006 and 2008, it had the result of making the marginal price for energy higher in the wholesale market than prices based on average costs. The paper points out: "The combination of higher prices and healthy profits earned by power producers in restructured states contributed to a strong dissatisfaction with restructuring in several states. The mood of ex-post regret in restructured states peaked in 2007-2008. States such as Illinois, Maryland and Maine initiated proceedings that were characterized as rolling back deregulation.

In discussing the next 20 years in the electric industry, the authors state that since 2005, "the regulatory/legal status of electric restructuring – in generation, transmission, distribution and retailing – has changed little in the last decade." The authors predict the greatest change going forward would be "the increased recognition of the environmental costs of electricity generation." Among other policy discussions will be the "economic and technical management of intermittent production resources (wind and solar) and policies regarding distributed (behind the meter) resources.

5. Nalder, Eric "Deregulation in Texas fails to make power more reliable, cheap" January 13, 2013 Houston Chronicle (<a href="http://www.houstonchronicle.com/business/energy/article/Deregulation-in-Texas-fails-to-make-power-more-4191062.php">http://www.houstonchronicle.com/business/energy/article/Deregulation-in-Texas-fails-to-make-power-more-4191062.php</a>)

The article argues that "a decade of electricity deregulation in Texas has driven up the pay of investor-owned utilities' chief executives, but has not fulfilled promises to produce the nation's most reliable and cheapest power." The article compares IOU executives' pay over a 9-year period and to municipal utilities executives' pay.

Deregulation is cited as having the unintended consequences of "discouraging the building of new power plants, leaving the state's power suppliers vulnerable as Texas continues to grow." The article points out some commenters cite benefits of deregulation as being the growth in the use of wind energy and the use of smart meters.

6. "Shocking electricity prices follow deregulation," Paul Davidson and USA Today August 12, 2007 (<a href="http://abcnews.go.com/Business/story?id=3465534">http://abcnews.go.com/Business/story?id=3465534</a>)

Utility bills said "to be rising sharply for residents in many states that unshackled their power markets as rate caps, the final remnants of regulation expire." Article notes that "Virginia reregulated its power industry in July. Other states have partly reregulated or are weighing doing so before rate freezes are lifted." Rates in deregulated states rose by a greater percentage than rates in regulated states. Sources cited in article note a variety of things responsible for rate increases: "wholesale power markets dominated by a handful of large suppliers;" price manipulation; sellers having too much leverage because electricity cannot be stored and it is needed 24 hours a day; use of rate caps "which kept prices artificially low and left rivals no room to undercut the utility;" and that wholesale suppliers have built few plants because they have been unable to secure financing for competitive plants.

7. Rosen, Kelly and Stutz, "A Failed Experiment: Why electricity deregulation did not work and could not work" March 1, 2007 (Tellus Institute)

(http://www.tellus.org/pub/A%20Failed%20Experiment%20%20Why%20electricity%20deregulation%20did%20not%20work%20and%20could%20not
%20work.pdf)

Article argues deregulation has failed on multiple counts. It has resulted in deregulated states having rates that are 55% higher than regulated states and in increased price volatility and decreased reliability. Cites to Montana as being "the poster child for the nation's failed experiment in deregulation," and deregulation precipitating the 2000-2001 California Energy Crises. The article further concludes: "states deregulated not only in the wrong way, but at the wrong time"; deregulation has resulted in regulatory oversight shifting to Washington (the Federal Energy Regulatory Commission or FERC) marginal pricing is a "key reason electric power costs are higher in deregulated states"; market pricing structures were flawed; deregulation results in increased price volatility; price manipulation through market power is predictable and expected; decentralization of generation, transmission, distribution and retail sales is less efficient and more expensive than a centralized planning and management of those functions: retail competition does not make economic sense and has never really caught on in practice except in the case of large customers; and reliability has been neglected (neglected infrastructure).

8. Toole, Ken "Don't make deregulation mistake again in Montana" March 6, 2017, Great Falls Tribune (<a href="http://www.greatfallstribune.com/story/opinion/2017/03/06/make-deregulation-mistake-montana/98802500/">http://www.greatfallstribune.com/story/opinion/2017/03/06/make-deregulation-mistake-montana/98802500/</a>)

Opinion by Ken Toole who was elected to Montana Senate (twice) and served one term on the Montana Public Service Commission (MPSC) describes the negative impacts of the 1997 deregulation of the Montana electric industry: bankruptcy of state utility "taking the pension of Montana Power workers and stockholders investments with it" and increased power rates. Montana has since reversed deregulation which required allowing NorthWestern Energy, the state's utility, to buy back plants at inflated prices. NorthWestern Energy now provides power generation, distribution and related services and is regulated by the MPSC. The author concludes "Too bad it cost us so much and it took so long" to get back to regulation that assures "rates that are just and reasonable."

9. Inbody, Kristen "Deregulation costs state hundreds of millions of dollars," December 6, 2014, Great Falls Tribune (<a href="http://www.greatfallstribune.com/story/life/2014/12/07/montana-moment-deregulation-costs-state-hundreds-millions-dollars/19978147/">http://www.greatfallstribune.com/story/life/2014/12/07/montana-moment-deregulation-costs-state-hundreds-millions-dollars/19978147/</a>)

Article outlines some of the fall-out from the 1997 deregulation of the electric industry: "higher power bills and then lower employment as business had to redirect revenue to their power bill," Montana Power going bankrupt, Montana Power employees losing their jobs, and stockholders losing about \$2 billion.

10. "Changing Course: Latest RKS Survey of State Utility Regulators Documents Retreat from Deregulation," September 21, 2001, Power Marketers

New survey "shows dramatic reversal of support among state utility regulators for deregulated energy markets" and one third of currently deregulated states say "they are now seriously considering re-regulating utilities."