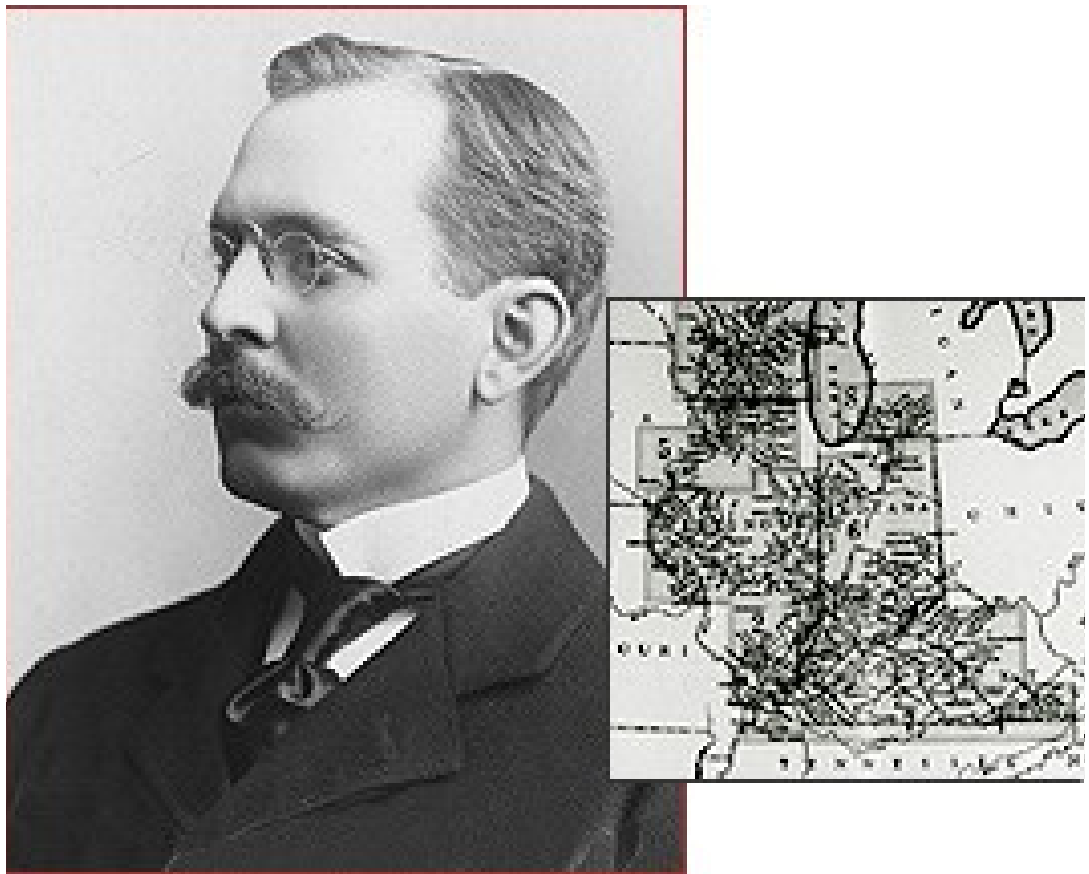


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THE VERTICALLY INTEGRATED UTILITY

A TIME-TESTED APPROACH FOR DELIVERING
CUSTOMER BENEFITS AND ENSURING STATE
FLEXIBILITY IN ACHIEVING ENERGY POLICY GOALS



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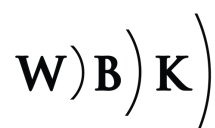


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INTRODUCTION

Twenty years or more after its heyday, utility restructuring seems to be having a bit of a moment. (1) While it never really went away, restructuring has not expanded beyond the handful of states that adopted the model in the 1990's and early 2000's. (2) In recent months, however, states as diverse as Virginia, Arizona, Missouri, Montana, North Carolina and South Carolina have all had some form of public policy discussion about the potential for utility restructuring. On one hand, it is a curious time for such deliberations; for many of the very states that did restructure have gone, or are in the process of heading, the other direction—back to some form of traditional or quasi-regulation. On the other hand, it is not hard to see why the veneer of restructuring hasn't entirely lost its luster. Retail choice—which has found a home in states as different as Texas and Massachusetts—holds curb appeal for both conservatives (who may prefer the notion of “markets” to “regulation”) and liberals (who may be suspicious of the regulated, investor-owned model under the mistaken impression that utility deregulation will increase clean energy deployment).

Given these debates about the regulation of utilities, a primer on the value of the traditionally regulated, vertically integrated electric utility is in order. For despite the attention restructuring sometimes receives, it should be noted the regulated utility model has a venerable history in this country. The majority of states still embrace the basic tenants of the model. It has been in use nearly a century and generally has resulted in energy being delivered with reliability and at rates that compare favorably to anywhere else in the world. The vertically integrated model provides value for customers in a rapidly changing energy delivery system. Further, it is better able to deliver affordable, reliable, and flexible power options for customers than the restructured model, and it does so while leaving states free to determine their own energy paths, which can include diverse policy goals like job creation, cleaning the power sector, and independent oversight. The paper first provides background on the vertically integrated utility and the restructured model, then it proceeds to explain why the former is better positioned to benefit customers while leaving states flexibility in determining their energy policy goals.

In short, restructured markets have not been shown to produce cost savings for customers, they force states to largely forgo self-determination of their energy mix, and they also have encountered significant issues on maintaining reliable service for all customers. These facts drive home the important point that states considering restructuring should reconsider whether the change will serve their residents' interests and their states' energy policy goals. Furthermore, for states considering a return to the vertically integrated utility, this paper encourages them to do so. The twenty-year experiment may have been necessary to see restructuring's drawbacks, but it is time to return to the time-tested and reliable performance that the vertically integrated utility provides.

1. This paper employs the term “restructuring” to refer to the public policy decision to unbundle vertically integrated utilities into separate generation, transmission and distribution components, and wherein “retail choice” is implemented to end the regulated monopoly provision of energy services. Under such a regime, the distribution “wires” portion of the utility business is still a regulated monopoly. This regime has often been referred to as “deregulation” or “retail choice” in the popular press, but this paper instead uses “restructuring” as a relatively neutral term of art.

2. Although restructuring has lost much of its momentum, we must note that Community Choice Aggregations (CCAs) have built significant political steam in the interim. Although CCAs are somewhat distinct from restructuring in that they do not require a wholesale change to the regulatory scheme, it is worth noting that they share an important similarity. Retail choice allows retail providers to cherry pick certain high-profit customers, leaving (lower revenue) customers holding the sunk cost bag.

BACKGROUND ON THE VERTICALLY INTEGRATED UTILITY MODEL

Before discussing the benefits that the vertically integrated model affords, it is important to understand, at a high level, the structure and features of the vertically integrated utility model. Building on the legacy of late 19th Century state railroad commissions and beginning with New York and Wisconsin's development of utility regulatory commissions in 1907, the model has been in use throughout the country for over a century, (3) and it is still employed by 36 states. (4) As the name suggests, these utilities are "vertically integrated," meaning that they are responsible for each step along the electricity supply chain from producing electric power (generation), transmitting it across long distances (transmission), and delivering it to the end-user (distribution). Broadly speaking, states in the Pacific Northwest, Mountain West, Midwest, and Southeast employ this model. (5)

In this model, the vertically integrated utility is granted an exclusive franchise within its service territory; in return, the utility shoulders the obligation to serve all customers in that territory and submits itself to state regulation of its rates, investments, and other activities. The regulator—usually a state public utility commission or state public service commission—is responsible for ensuring that the utility provides safe, reliable service at just and reasonable prices. (6) In this role, the regulator sets the utility's rates, oversees complaints, ensures consumer protections, and provides expert oversight as to the prudence of investments to ensure an appropriate balance between consumer benefits and the necessity that a utility recover its proposed investments and expenses, along with an opportunity to earn a reasonable return.

Because decisions on generation, transmission, and distribution are all within the state's control, policymakers can steer utility behavior and performance through regulatory mechanisms and maintain authority over these decisions. Taking state clean energy goals or objectives as one example, a state may direct a vertically owned utility to build or procure certain types of preferred generation to meet state policy goals, and it may have the state commission help implement this directive through the rate-setting and planning processes that it already has in place.

BACKGROUND ON THE RESTRUCTURED MODEL

Having described the structure and approach taken to regulating vertically integrated utilities, this paper now explains how the restructured model differs. Unlike the vertically integrated utility model, in restructured states, different companies along the supply chain provide generation, transmission, and distribution services. On the generation side, independent (or "merchant") power producers exist as entities separate from the rest of a bundled utility and they are dependent on revenues derived from administratively designed "markets." (7)

3. See *The History and Evolution of the U.S. Electricity Industry* at , Univ. Tex. Energy Inst. (July 2016).

http://sites.utexas.edu/energyinstitute/files/2016/09/UTAustin_FCe_History_2016.pdf (noting that by 1914, 45 states had established government oversight of utilities).

4. See AN INTRODUCTION TO RETAIL ELECTRICITY CHOICE IN THE UNITED STATES at 1 fig.1, 21ST CENTURY POWER P'SHIP (2017), <https://www.nrel.gov/docs/fy18osti/68993.pdf> (including all states in dark shading as states without vertically integrated utilities).

5. It should be noted that even within this model, various differences arise, for example, throughout the entire Midwest, while states have maintained the basic structure of their vertically integrated utilities, these utilities do participate in full day-ahead and real-time energy markets, in which operational control and dispatch of generation and transmission is handled by Regional Transmission Organizations like the Midcontinent Independent System Operator and the Southwest Power Pool. This is not the case throughout much of the West and Southeast, where individual utilities maintain responsibility for operating their own balancing areas.

6. See, e.g., *Utility Information*, COLO. DEPT OR REGULATORY AGENCIES, <https://www.colorado.gov/pacific/dora/utility-information> (last visited Apr. 10, 2020) (noting that "regulation serves the function of ensuring that service is adequate, safe, reliable, and is provided at reasonable prices").

7. The vast majority of these merchant generators exist in regions of the country served by one of the following market operators: the PJM Interconnection, ISO-New England, New York-ISO, or the Electric Reliability Council of Texas. In all of these regions, except Texas, generators receive revenue from both energy and capacity "markets." In ERCOT, generator revenue is derived from an "energy-only market." Quotation marks are appropriate here because these complex systems employed to dispatch generation sources bear little resemblance to a true market. See Raymond L. Gifford & Matthew S. Larson, For RTOs & ISOs: 'Don't call it a market' (props to LL Cool J), UTILITY DIVE (Nov. 12, 2018), <https://www.utilitydive.com/news/for-rtos-isos-dont-call-it-a-market-props-to-ll-cool-j/541895/>. "Administrative mechanism" would perhaps be a more suitable term, nevertheless, given the prevalence of the term, this paper reluctantly uses market.

On the retail side, retail electric providers (8) procure power from these markets, pay for transmission from transmission providers, and sell to retail customers over the wires of a regulated distribution company. Under the restructured theory, customers would thus have electricity “choice” amongst a number of these retail electricity marketers, who are dependent on using regulated wires companies to deliver the energy they procure from merchant generators.

With the general model employed in restructured states in mind, it is also helpful to understand how we reached the point where some states have restructured when others adhere to the vertical model. First, and most fundamentally, in our federal system, Congress has only given the federal government authority to regulate wholesale sales and interstate transmission. Accordingly, retail regulation has been left to the states, and states were free to experiment with different regulatory systems (although they all originally employed the vertically integrated utility model from the dawn of electric utility regulation into the 1990s). In the 1990s they did just that, and a restructuring wave swept across some parts of the country. While much of the theory of restructuring was based on the notion of shifting the risk of utility investment decisions from captive customers to utility shareholders, the fact remains: by-and-large, states with higher power prices restructured, but states with lower power prices stayed put. (9) In practice, the decision to restructure was, unsurprisingly, in most cases a reflection of specific state policymakers’ frustration with high electricity costs, much more than any particular allegiance to the theory of restructuring. For example, most of the states in the Northeast chose to restructure, and those same states had very high average electricity prices owing mostly to natural resource constraints and high loads. (10) Similarly, California’s average electricity prices were especially high, and it also restructured. (11) By contrast, states across the West and Southeast, by and large, did not restructure. (12)

The generators and retail providers in restructured states are not regulated in the same way as a vertically integrated utility. That is not to say that they are unregulated; they are simply regulated in a different way. Rather than interposing an expert regulator to review rates and resource planning, the restructured states have left the “markets” to decide those questions. In states with retail choice, different retail electric suppliers purchase wholesale power and compete against each other for business based on cost and offering different rate designs, but these entities have no duty to serve all customers and may charge prices without regulatory oversight—that is, they may charge whatever prices the markets will bear. Regulations still control how these generators and retail suppliers may act within their markets, but the resource planning, resource adequacy and rate-setting roles of the regulator is no longer part of the equation, or at least should not be if the restructured model is to be adhered to. Importantly, this means that states relinquish their resource planning role by restructuring, and they therefore cannot implement their public policy choices for certain types of generation sources directly. Instead, they must try to move other levers to favor one variety of generators over another, but the wholesale markets are ultimately within the FERC’s purview.

8. Retail electric suppliers are only a feature in states that have implemented retail choice, i.e., competition on the retail side. These entities do not own any of the infrastructure for producing power or transmission; they merely arrange for delivery and for billing customers.

9. TONY CLARK, REGULATION AND MARKETS: IDEAS FOR SOLVING THE IDENTITY CRISIS, WILKINSON BARKER KNAUER (July 2017), [http://www.wbklaw.com/uploads/file/Articles-%20News/2017%20Articles%20publications/Market%20Identity%20Crisis%20Final%20\(7-14-17\).pdf](http://www.wbklaw.com/uploads/file/Articles-%20News/2017%20Articles%20publications/Market%20Identity%20Crisis%20Final%20(7-14-17).pdf). In a sense, the different paths taken manifested the aphorisms the “grass is always greener [if you are discontent]” versus “if it ain’t broke, don’t fix it” controlling a policy outcome.

10. *Id.*; see also U.S. ENERGY INFO. ADMIN., STATE ELECTRICITY PROFILES (Feb. 1999).

<https://www.eia.gov/electricity/state/archive/062998.pdf> (showing average prices in each state in 1996).

11. See U.S. ENERGY INFO. ADMIN., *supra* note 10, at 30 (showing California was ranked 42 for electricity prices in 1996).

12. Texas is perhaps the exception to this general rule; the state did not have especially high power prices in the 1990s yet it chose to fully embrace restructuring and implemented both retail choice and competitive power generation.

BENEFITS OF THE VERTICALLY INTEGRATED UTILITY MODEL

Owing to several important differences between the vertically integrated utility model and the restructured model, the vertically integrated model offers several distinct advantages, which can be categorized as: 1) maintaining state policy authority; 2) enhancing consumer protection; and 3) beneficial economic incentives.

Beginning with maintaining state policy authority, the vertically integrated utility model affords state policymakers the most authority, autonomy, and flexibility in achieving their state energy goals. As compared with states in restructured markets, the regulated utility model allows states to exercise full control and self-determination over important energy policy issues like energy supply mix, generation siting, economic development, and the transition to low- and zero-carbon technologies. In restructured markets, the administrative market mechanism determines the prices that generators will receive for their energy (or for their capacity), and as a relatively recent Supreme Court case (13) clarifies, states cannot provide incentives that are tethered to clearing the administrative auctions. (14) Consequently, restructured states are left with inexact, work-around instruments with which to achieve their favored energy policy outcomes without having authority to influence the outcomes directly. Unfortunately, in taking these “around market” actions, the states thereby obliterate the wholesale pricing mechanisms that were established to guide the investment and operational decisions of all the merchant generators that do not receive the “around market” financial support.

The story is different in states with vertically integrated utilities. Taking the example of clean energy, state legislatures can enact any variety of clean generation requirements, which are then administered by state commissions, without having to trouble with the complexity added by the interaction with an administrative market. The real-world results of this approach are clear. Colorado’s largest vertically integrated utility, Xcel Energy subsidiary Public Service Company of Colorado, already produces more than 30% of its electricity from renewable resources, plans by 2030 to reduce its carbon emissions by 80% compared with 2005 levels, and is committed to going 100% carbon-free by 2050. (15) In a similar vein, the vertically integrated model also allows states to realize other benefits from full control over generation decisions. If a state decides that certain resources are necessary for reliability or for achieving its environmental goals, then the legislature or state regulator can choose to compensate that type of generation source in a way that a wholesale market would not have assured. In this way, states can make sure that certain generation sources that might be needed are able to keep running, and it can allow states to maintain a diverse generation portfolio that can help to hedge against fuel cost fluctuations. These are benefits that a wholesale market does not explicitly value.

The vertically integrated utility also provides an effective avenue through which to safeguard customer interests. Through state regulatory commissions and the public proceedings they hold (which allow diverse stakeholder interests to be heard), the state can enact strong customer protections. In particular, commissions review all the utility’s investment decisions to ensure that they are prudent. This mechanism puts downward pressure on rates charged to customers and prevents utilities from investing in generation assets that are not necessary. The state commissions that make these decisions have deep expertise on these issues after having been tasked with making these decisions for years, and they employ engineers, lawyers, economists, and other experts to help make an evaluation that serves the public interest. It is also worth noting that these proceedings at the state commissions do not foreclose local input. Cities, local governments and public interest groups often participate in these proceedings to further their constituents’ goals. For instance, if a city’s residents are interested in expanding clean energy options, the city may present its case before the state commission, and the commission can balance this input along with other stakeholder views.

13. See *Hughes v. Talen Energy Mktg.*, 136 S. Ct. 1288 (2016).

14. *Id.* at 1299.

15. *Colorado Energy Plan*, XCEL ENERGY (May 2019), <https://www.xcelenergy.com/staticfiles/xcel-responsive/Company/Rates%20&%20Regulations/Resource%20Plans/CO-Energy-Plan-Fact-Sheet.pdf>.

Vertically integrated utilities—owing to their large scale and lower investment risk—also offer inherent economic benefits that help lower costs to customers and are not available in restructured markets. First, vertically integrated utilities operate at a very large scale and often serve millions of customers. (16) With this scale, the utilities can capture the economies inherent in the provision of electric power. The large fixed costs required in constructing electricity generation and transmission assets can be spread over millions of customers to reduce individual costs per customer.

Restructured markets, by contrast, are dependent on supply by both merchant generators, whose financial profile is inherently riskier than a regulated utility, and retail marketers, who need to add their “middleman mark-up” to realize a profit. This is perhaps in part why, as noted below, there is no strong evidence that restructuring inherently lowers customers’ rates.

Vertically owned utilities’ costs of capital are often lower than those of private companies that generate power in the restructured markets. As part of the rate regulation authority exercised by regulatory commissions, regulators determine utilities’ cost of capital by setting the utilities’ return on equity, cost of debt, and the ratio between the two. And because these utilities are allowed to recover their prudent investment costs, capital markets view them as reliable investments, and do not demand the same returns on capital as independent power producers in the restructured states. (17) Ultimately, this means that utilities’ total costs from investing in generation or transmission assets can be kept low. Furthermore, because vertically owned utilities are viewed as reliable investments, they are able to raise large amounts of capital quickly, which benefits customers and state policy implementation by allowing the utilities to undertake significant projects (whether they be new generation, advanced metering, or transmission and distribution upgrades) without encountering financing delays.

Finally, those concerned about competition and the downward price pressure it can engender, should also recognize that vertically integrated utilities, are also able to capture benefits of competition. For example, a number of state utility commissions already require—and have for years—competitive bidding and solicitation mechanisms to foster competition in power acquisition. The vertically owned utility may itself be regulated, but its potential suppliers compete for its business. (18) Accordingly, the model introduces competition where it is appropriate without relying on administrative market constructs that divest policy choice from the states and demand large management costs.

16. See generally U.S. ENERGY INFO. ADMIN., ELECTRIC SALES REVENUE, AND AVERAGE PRICE, 2018 UTILITY BUNDLED RETAIL SALES - RESIDENTIAL (Oct. 1, 2019), https://www.eia.gov/electricity/sales_revenue_price/pdf/table6.pdf

17. See ENERGY + ENVTL. ECON., CAPITAL COST REVIEW OF POWER GENERATION TECHNOLOGIES Ch. 5, pp. 1-3 & tbl. 36 (Mar. 2014), https://www.wecc.org/Reliability/2014_TEPPC_Generation_CapCost_Report_E3.pdf (estimating the investor-owned utility weighted-average cost of capital is 7.3% compared with 8.3% for independent power producers).

18. See, e.g., Michael O’Boyle, *How Effective Utility Monopsony Regulation Drove Colorado’s Shockingly Cheap Wind And Solar Bids*, FORBES (Dec. 10, 2019), <https://www.forbes.com/sites/energyinnovation/2019/12/10/how-effective-utility-monopsony-regulation-drove-colorados-shockingly-cheap-wind-and-solar-bids/#346e9034a462>.

DRAWBACKS OF THE RESTRUCTURED MODEL

In the more than twenty years that have passed since many states have restructured, we can draw conclusions on the effectiveness of restructuring along several policy dimensions. Because, in practice, restructuring was broadly implemented to reduce costs, we examine whether the approach has been successful in this dimension first. Restructuring has not lowered prices at the wholesale level and has often resulted in higher costs for retail customers. Not only has restructuring failed to live up to its promise of reducing costs, but restructured states have also forfeited their authority and ability to execute state public policy goals, including their choices around clean energy, economic development, and customer protection. (19) This section discusses these drawbacks in more detail.

Turning to a more detailed analysis of cost effects, we ask, have costs in restructured markets fallen because of the restructuring? The answer appears to be no. An empirical study conducted by two economists shows that restructured markets do not produce price reductions compared with other structures after controlling for effects of outside factors like technological change and natural gas price reductions. (20) Indeed, the authors note that electricity prices in restructured states grew substantially faster than in states without restructuring as natural gas prices rose in the late 2000s. Only after 2009, when natural gas prices began to fall, did prices in restructured states also fall. Thus, there appears to be no inherent cost advantage in restructuring, and it also exposes customers to higher natural gas prices and other volatility that can arise in any commodity market. (21)

Electricity is also a unique commodity because it cannot be stored cheaply at large scale (and it therefore must be produced at exactly the time it is consumed), short-term supply is capacity constrained, and retail demand is relatively inelastic as compared to other commodities. (22) Consequently, electricity markets are uniquely susceptible to market power among generators at certain times and days of the year when demand is especially high, (23) which can lead to unnaturally high prices. In addition to these market power issues, the complexity of the power system means that running an administrative market requires substantial costs; (24) indeed, the Electric Reliability Council of Texas, which oversees the state's wholesale power market had a budget of \$222 million in 2018 and \$228 million in 2019. (25)

Not only has restructuring failed to inherently lower prices, but the ability of states to control their generation resource options under the vertically integrated model stands in clear contrast to the difficulties restructured states have encountered in attempting to exercise control over their generation supply mix after they have restructured. Although the Federal Power Act ostensibly leaves decisions concerning electricity generation to the states, when a state restructures and leaves resource adequacy decisions to a federally regulated wholesale market, the reality is the state is transferring enormous authority from its state capitol to Washington, D.C.

19. Given these problems, it is perhaps no surprise that many states that did restructure are now considering returning to the vertically integrated utility model. See, e.g., Jasmin Melvin, *Capacity market turmoil has states eyeing the exit as grid operators seek solutions*, S&P GLOBAL (Feb. 13, 2020), <https://www.spglobal.com/platts/en/market-insights/latest-news/electric-power/021320-capacity-market-turmoil-has-states-eyeing-the-exit-as-grid-operators-seek-solutions> (Connecticut and New York considering stepping back from capacity markets or the market altogether); Robert Walton, *New Jersey looks to exit PJM capacity market, worried MOPR will impede 100% carbon-free goals*, UTILITY DIVE (Mar. 31, 2020), <https://www.utilitydive.com/news/new-jersey-looks-to-exit-pjm-capacity-market-worried-the-mopr-will-impede/575160/> (New Jersey considering leaving PJM).

20. Severin Borenstein & James Bushnell, *The US Electricity Industry After 20 Years of Restructuring*, 7 ANNUAL REV. ECON. 437 (2015), https://www.annualreviews.org/doi/full/10.1146/annurev-economics-080614-115630#_i2.

21. Rose, Kenneth and Taruffelli, Brittany and Upton, Gregory, *Electricity Market Restructuring and Retail Rates* (July 26, 2020). USAEE Working Paper No. 20-462, Available at SSRN: <https://ssrn.com/abstract=3660974> or <http://dx.doi.org/10.2139/ssrn.3660974>

22. Frank Wolak, *Managing Unilateral Market Power in Electricity 4* (World Bank, Policy Working Paper No. 3691 Sept. 2005). To be sure, as storage technologies become cheaper and are deployed more broadly this effect will be partially mitigated, but in the main it holds true.

23. *Id.*; see also Diana L. Moss, *Electricity Market Power: Current Issues for Restructuring Markets (A Survey)*, 11 *Envtl. & Energy Law & Pol'y J.* 11, 13-14 (2006).

24. See Ray Gifford & Matt Larson, *Of monopolies and monopolies: Cost of service 'markets' abound*, UTILITY DIVE (Mar. 28, 2018), <https://www.utilitydive.com/news/of-monopolies-and-monopolies-cost-of-service-markets-abound/519871/>.

25. ELEC. RELIABILITY COUNCIL OF TEX., ERCOT 2018-19 BUDGET (Aug. 2017), http://www.ercot.com/content/wcm/lists/114741/Budget_2018-19_One_Pager_FINAL.pdf.

In these regions, the types of generation resources that will be selected depends on which ones can clear in the FERC jurisdictional wholesale market constructs. This can be a fraught exercise when marginal cost pricing controls the market price, which often means the market price is not enough to cover some generators' fixed costs. (26) States have thus had to look for ways to provide incentives outside of the markets through "around market" mechanisms to try to support their preferred generation sources. (27)

Despite states' attempts to support preferred generation sources outside of the market, states must understand that the federally regulated administrative markets that generation resources must sell into hold the final say on how those constructs will operate. Recent events at PJM—the country's largest RTO—provide an important warning on this issue. FERC's recent order concerning the PJM Minimum Offer Price Rule (28) requires all generation sources receiving state support to offer their generation into the PJM capacity market at an administratively determined price floor. Setting aside the merits of FERC's order (which has drawn some criticism), one fact is clear: it will make it more difficult for renewable resources to clear the capacity market, and it offers a cautionary tale for states that wish to restructure, while at the same time continuing to pick and choose their generation resources. Thus, states that have restructured risk—at best—subjecting their energy generation choices to the vagaries of the organized market construct and—at worst—risk relinquishing their authority to market administrators or to FERC. In sum, states that fully restructured ultimately surrendered significant authority over their resource decisions to Independent System Operators ("ISOs") or Regional Transmission Operators ("RTOs") governed by tariffs (or giant administrative rule books) approved by the Federal Energy Regulatory Commission. This control is not easy to get back once ceded to ISOs and RTOs.

By restructuring, states also effectively forfeit their authority over electricity generation in other ways besides making resource decisions. (29) States are no longer able to directly control generation to further other public policy goals like ensuring supply diversity as a hedge against individual fuel-cost risk and using electricity policy to influence economic development and job growth. And unlike in states with vertically integrated utilities, the states lose their ability to directly ensure long-term supply reliability through resource planning conducted by subject-matter experts in open, transparent and adversarial proceedings at state regulatory commissions.

Next, on the retail side, states have lost important tools for safeguarding customer welfare, which has been manifested by the predatory practices undertaken by retail electricity providers and higher costs. (30) For example, the Massachusetts Attorney General has received more than 1,000 complaints from Massachusetts residents alleging that retail providers used predatory tactics to sign up new customers. (31) In response, the attorney general's office investigated these claims and concluded that retail providers in the state have indeed used predatory tactics and have over-charged customers. (32) From 2015 to 2019, residents who switched to a competitive electric supplier paid \$340 million more in aggregate than if they had not switched away from their electric utility. (33)

26. Illinois and New York's programs to support nuclear power generators through Zero Emissions Credits (ZECs) offers the foremost example of the methods used to support generation that is uneconomic in a wholesale market. See Raymond L. Gifford & Matthew S. Larson, 'Around Market,' 'In Market,' and FERC at a Crossroads 2 (May 2018), [https://www.wbklaw.com/uploads/file/Articles-%20News/2018%20Articles%20publications/White%20Paper%20-%20Market%20Design%20Issues%20-%20May%202018\).pdf](https://www.wbklaw.com/uploads/file/Articles-%20News/2018%20Articles%20publications/White%20Paper%20-%20Market%20Design%20Issues%20-%20May%202018).pdf).

27. See *id.* at 1.

28. *Order Establishing Just and Reasonable Rate*, 169 F.E.R.C ¶ 61,239 (2019).

29. Perhaps they haven't forfeited authority in the legal sense, but at the very least, they have made it exponentially more difficult for themselves to enact these policy choices without further balkanizing and undercutting the price setting mechanisms in federally jurisdictional wholesale markets, which only increases the likelihood of further policy clashes with FERC.

30. See, e.g., Michael Humes, *Time to End the Third-Party Residential Electric Supply Market*, AARP (Feb. 4, 2019), <https://states.aarp.org/connecticut/time-to-end-the-third-party-residential-electric-supply-market>.

31. Maura Healy, *Stop individual residential electricity sales*, COMMONWEALTH MAG. (Jan. 29, 2020), <https://commonwealthmagazine.org/opinion/healey-stop-individual-residential-electricity-sales/>.

32. *Id.*

33. *Id.*

What is more, the attorney general also concluded that low-income customers are more likely to be impacted, and paid on average \$196 more per year than they should have. (34) The Massachusetts story is not a one-off; in Illinois, the Illinois Commerce Commission issued its annual report regarding the development of the retail choice market in July 2020. (35) The Citizens Utility Board review of the report revealed that “[r]esidential customers have now lost more than \$1 billion to alternative electric suppliers since 2015” (36)

Retail electric suppliers have also been found to frequently target the most attractive customers (typically, industrial and large commercial customers), while leaving behind residential and small-commercial customers. (37) This is problematic because the smaller customers are left holding the bag for the incumbent utilities’ fixed costs after the larger customers switch away, resulting in a “a heads-I-win, tails-you-lose proposition.” (38)

Finally, restructuring can adversely impact state budgets through lost tax revenue and can impose additional costs needed to administer the market mechanism. A recent consulting analysis of the potential impacts on Florida’s budget that would have resulted from a proposed ballot initiative on electricity restructuring there illustrates the point. (39) The proposed ballot initiative in Florida would have eliminated the vertically integrated utilities and replaced them with a wholesale market for power and retail choice while leaving the utilities to continue operating the transmission and distribution system. (40) According to the consultants who analyzed the proposal’s impacts, it could have resulted in significant loss of revenues through lost gross franchise fees, receipt taxes, municipal taxes, and property taxes. (41) On top of all that, the administrative costs of the wholesale market itself would have had substantial costs. (42)

It should be clear at this point that the restructured model comes with significant disadvantages, without providing benefits to outweigh those disadvantages or effective ways to eliminate the disadvantages through elegant policy instruments.

CONCLUSION

The political allure of utility restructuring is understandable. It sounds good on paper, and would seem to cater to the interests of both self-described libertarian-minded “free market” advocates and those on the left who may be suspicious of investor-owned utilities serving a captive customer base. But for the present-day leaders of states that have not restructured, it is worth understanding the underpinnings of the regulated utility model, its advantages, and learning the lessons from the experiences of the handful of states that have been experimenting with retail restructuring for the last 20 years. In that light, several matters stand out for policy makers. Among the most salient points, given today’s changing electricity grid, is the straightforward manner by which vertically integrated utilities can, at just and reasonable rates, transition their generation fleets to meet the environmental, economic and resource mix goals of the states in which they operate. In practice, restructured states have struggled to rationally align their state energy policy goals with federally jurisdictional wholesale markets. In addition, for whatever criticisms are leveled at the vertically integrated utility by the model’s detractors, regulatory mechanisms exist to integrate changing grid technologies and ensure customer protections and a fair process. Equally important, states with traditional regulatory tools will be well-positioned to adapt to ever-changing dynamics in ways that leverage the large scale and attractive capital formation profiles exhibited by vertically integrated utilities.

34. *Id.*, https://www.citizensutilityboard.org/wp-content/uploads/2020/07/20200812_SupplierLosses.pdf

35. *Office of Retail Market Development Annual Report 2020*, <https://www.icc.illinois.gov/icc-reports/report/AnnualReportOfficeOfRetailMarketDevelopment>.

36. *Citizens Utility Board, Report: Since 2015, Customers Have Lost \$1 Billion with Alt Suppliers*, https://www.citizensutilityboard.org/wp-content/uploads/2020/07/20200812_SupplierLosses.pdf.

37. See MATTHEW J. MOREY ET AL., ELEC. MARKETS RESEARCH FOUND., *RETAIL CHOICE IN ELECTRICITY: WHAT HAVE WE LEARNED IN 20 YEARS?* 50 (2016), https://hepg.hks.harvard.edu/files/hepg/files/retail_choice_in_electricity_for_emrf_final.pdf.

38. *Id.*

39. See generally CHARLES RIVER ASSOCS., FLA. CHAMBER COMMERCE, *FLORIDA ELECTRICITY MARKETS RESTRUCTURING BALLOT INITIATIVE POTENTIAL FINANCIAL IMPACT TO FLORIDA STATE AND LOCAL GOVERNMENTS* (2019), http://www.flchamber.com/wp-content/uploads/2019/08/Florida-Deregulation-Ballot-FIEC-Report_CRA_2019.02.19.pdf.

40. *Id.* at 21-22.

41. *Id.* at 30 & tbl.6 (showing decreased revenues of up to \$1.4 billion per year resulting from restructuring shifts in tax incidence).

42. *Id.*